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ABSTRACT

In charting the future for Massachusetts' public higher education, this agenda points to transfer access for 2-year college graduates and outreach programs for minority and disadvantaged students. The agenda seeks to move the 11 state colleges toward expanded community service and encourages them to cooperate in establishing special learning centers. Other major proposals of the agenda include: (1) A system of faculty evaluation that includes student participation. (2) Credit for students' practical experience gained in off-campus projects. (3) Reducing teaching duties for faculty members who initiate projects of scholarly merit, research, independent study, or of service to the campus or the community. (4) Integrating the specialized career programs with the liberal arts curriculum. (5) A Reevaluation of the role of teacher education in an era when employment opportunities are declining. Appendices include the policy on graduate education; the Massachusetts Transfer Compact; guidelines for new degree programs; and procedures for reduction in faculty teaching load. (Author/Pg)

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A Forward Look for the Massachusetts
State College System 1973-80

First Report of the Long-Range Planning
Committee to the Board of Trustees
of State Colleges

Approved by the Board of Trustees of
State Colleges November 8, 1973
Boston, Massachusetts

U.S. DEPARTMENT OF HEALTH,
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Committees do not write reports; individuals do. A document such as this one represents the combined efforts of scores of persons, professional and lay, concerned and involved with the future of the Massachusetts State College System.

Similarly, a report of a committee centering on long-range planning for the System, *circa* 1973, must of necessity draw on earlier studies by agencies working at other times, from other perspectives, with other lenses. Thus, five years from now, if the Trustee Committee on Long-Range Planning has done its work properly, this first report will be in its turn both a benchmark document which the Commonwealth can use to help measure progress in public higher education in the Seventies, and a policy resource paper for future studies dealing with educational planning in the Eighties.

The Committee wishes to express its appreciation to the many individuals and agencies whose work and studies contributed to "Agenda for Renewal: A Forward Look for the Massachusetts State College System – 1973-1980." A partial list of those to whom we are indebted appears in Appendix J, page 86.

The Committee intends that this "Agenda for Renewal," having been accepted and endorsed by the full Board of Trustees of State Colleges, be given the widest possible distribution throughout the Commonwealth. Policy guidelines set forth in the document are designed to aid Trustees, the Central Office staff, administrators, faculty members, and students throughout the System in decisions that will affect the institutions under the Board's jurisdiction for the rest of this decade.

It is important to underscore that this first report of the Committee represents only the beginning of an unending process of planning. In the past, plans have evolved on individual campuses and in some inter-institutional programs; however, this document has for its singular purpose the beginning of a System-wide and totally coordinated planning program.

Thus, this report does not attempt to provide an exhaustive and detailed map indicating every step to be taken in the years ahead. The Committee quite deliberately has steered away from that course. The report does, however, isolate those areas in which students, faculty, and administrators have expressed greatest concern. It does so without denying that considerable progress

has already been achieved in a number of these areas by institutions within the State College System. In the area of expanding access, for instance, many of the State Colleges have made great strides in recent years. Likewise, there has been progress at several of the State Colleges in re-examining and re-designing general education programs, in improving the quality of graduate education, in providing courses and programs of community service, in encouraging professional development, in developing learning alternatives and in establishing collaborative relationships with other institutions. This document implicitly acknowledges these accomplishments and seeks to build upon them. Further, this report recognizes the fundamental capacity of the State College System to project future needs and provide for their coordinated and intelligent fulfillment.

Our report intends to confirm and strengthen the operational autonomy of individual institutions, their student bodies, faculties and administrators. This autonomy, so essential to institutional development, will be further enhanced as each institution develops a sophisticated capacity for its own planning and a readiness to coordinate its efforts with the other institutions in the System. As urged so clearly by all respondents to the first draft of the planning document,¹ the recommendations in this report call for initiative and flexibility from each campus. It is also the intention of the Long-Range Planning Committee to act as the Board's agent in monitoring and evaluating the implementation of these recommendations. A progress report from the Committee will be filed with the Board in September, 1974.

The timetables for action are meant to be realistic although the target dates may require adjustment. The procedures proposed for the achievement of the goals for the Massachusetts State College System are in harmony with the Board's stated policies relating to shared governance.

No policies are immutable, no procedures inviolable, no plans above criticism. Nonetheless, decision time for higher education in the Commonwealth is at hand, and this report has been prepared with the clearcut understanding by all concerned that the Board of Trustees of State Colleges means to keep faith with the people of Massachusetts in building a State College System responsive to their needs and worthy of their continued support.

Philip L. Lowe, *Chairman*
Long-Range Planning Committee

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¹Jana B. Matthews, *Toward an Academic Master Plan for the Massachusetts State College System: Framework for Discussion*. November, 1972.

Public higher education in Massachusetts has just experienced a decade of unprecedented financial support by the legislative and executive branches of the Commonwealth. In recent years, making up for long neglect, substantial amounts of public funds have been invested in the state universities, the state colleges, the community colleges and the technological institutes. The result has been salutary growth and expansion.

It would, perhaps, have been asking too much to expect that the institutional pressures induced by enrollment increases and physical plant expansion would have, in turn, speeded the processes of educational change, causing colleges and universities to break sharply with the traditional approaches to teaching and learning. The fact of the matter is, however, that the nature of instruction, the patterns of earning credentials and the granting of degrees, particularly at the State Colleges, have generally adhered to a traditional format.

Today, all signs point to a period of stabilization and, indeed, to a certain amount of retrenchment. The Commonwealth is faced with a number of problems which must be confronted realistically. Looming large among these is the need for more effective, efficient and economic forms of higher education. It is, therefore, imperative that the Massachusetts State College System, in concert with the Office of the Secretary of Educational Affairs, the Board of Higher Education, and the several other governing Boards of Trustees in the public sector, inventory the Commonwealth's problems in higher education and assess the System's role in effecting their resolution.

First, there is the problem of resources. The need exists to extend and expand the use of, rather than to duplicate, the educational resources and instruction currently available at both public and private higher education institutions in the Commonwealth.

Second, there is the problem of access. The need exists, without sacrificing quality, to create a more flexible, diversified, less traditional higher education instructional system so that citizens in the Commonwealth can exercise more choice in their pursuit of higher education.

These pressing needs must be addressed now, at a time when the Commonwealth must carefully review financial priorities which

will determine its future investment in post-secondary education. This Report to the Board of Trustees of State Colleges suggests ways by which the Massachusetts State College System can and should respond to the educational needs of the Commonwealth in the period 1973-1980, simultaneously along several fronts, during a period of accelerating change.

Institutions of public higher education are today being asked to play broader and more varied roles in the major arenas of contemporary life. The Massachusetts State College System with campuses strategically located throughout the Commonwealth must be sensitive and responsive to the needs of its various regional populations. At the same time, there exist even broader trends – manpower needs, economic growth, social values and public commitments – which affect both the Commonwealth and the nation as a whole and which are discussed in detail later in this report beginning on page 9.

The impact of many of these trends is already being felt within the System. The call for providing more opportunities for a greater variety of constituencies is being clearly sounded – and the System has begun to respond. The call for alternative ways to earn college degrees, both on and off campus, is being heard – and the System is beginning to respond. The need for alternative career programs to complement programs in teacher education has become obvious – and here, too, the System is responding.

There are also larger issues of major social importance regarding which colleges have a special responsibility – the impact of technology on human relationships and values, the need for more widespread citizen dedication to public service, the imperatives of environmental improvement, the development of the capability to apply problem-solving methods and procedures to pressing social problems – to cite but four examples. As a major educational resource with a current annual investment-level of some 55 million dollars in operating budgets alone, the Massachusetts State College System has a responsibility to make its unique contribution to the education of the citizens of the Commonwealth not only for their individual benefit, but also for the common good.

The many voices of the State College System which have contributed to this document have not always agreed on means, but they willingly gave their best thinking to the endeavor. As

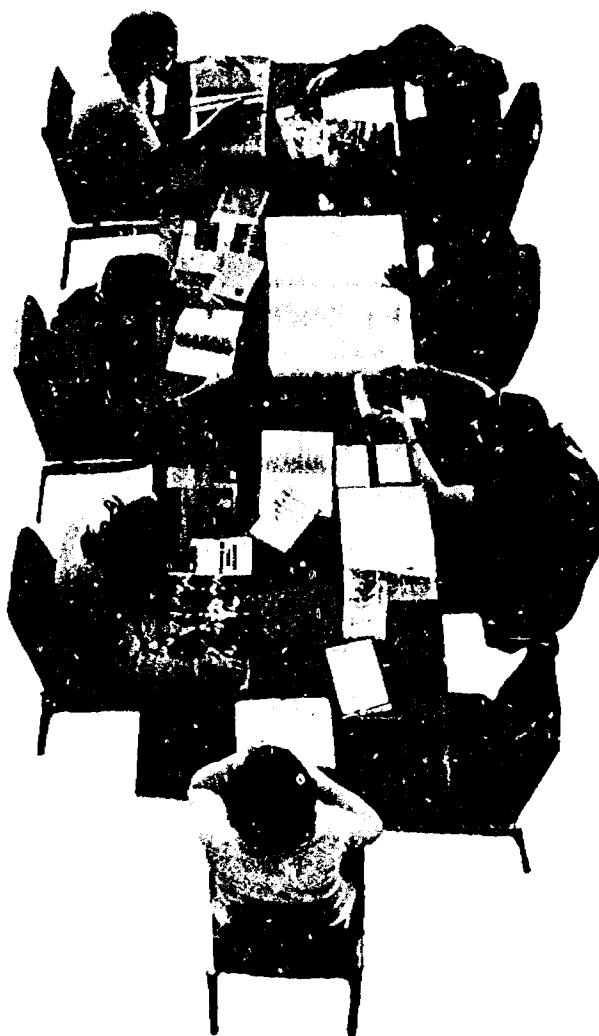
issues were discussed and decisions hammered out, there emerged, gradually, a consensus regarding the challenge ahead. It was the hopeful rather than the bleak outlook; it would mesh the best of the past with the unknowns of the future; it would regard present necessity as opportunity. From all of this, the concept of renewal was born, seeming to symbolize well the optimism and dynamic involvement of the Massachusetts State College System in addressing its problems. In a time of increasing complexity and turmoil, this task of System-wide self-renewal assumes greater urgency for the Trustees, Central Office staff, administrators, faculty members and students.

In short, the work of the Massachusetts State College System has grown in complexity and importance as its member institutions have matured and as the demands made upon them have broadened in scope and variety. This first report of the Committee on Long-Range Planning is intended to sharpen the focus of all concerned, both programmatically and operationally. It has been prepared, not as a finish to the planning process initiated by the Trustees in 1971-72, but as an integral part of that process. Its basic purpose is to formalize those goals and objectives which fall most clearly within the System's legal mandate as outlined in the succeeding section entitled "The Public Charge: Framework for Policy," and to establish those administrative mechanisms which can best achieve them.

As a planning document, "Agenda for Renewal" does not purport to be a "role and scope" study. Specific delineation of the academic missions of the 9 general purpose institutions and the 2 specialized colleges that comprise the Massachusetts State College System will be developed under the aegis of the Committee on Long-Range Planning during 1974. Subsequent committee reports will also deal with such questions as the role of the Central Office in the System, campus governance, the concept of "upper-division" institutions, System-wide policy coordination, future manpower needs of the Commonwealth, diversifying professional programs in the System, developing a System-wide program budget, inter-segmental cooperation in the use of technology, new approaches to non-traditional study for the adult student, and the role of the State Colleges in a Commonwealth "Open Learning Network." Several of the foregoing topics are currently under study by committees of the Board and the Central Office staff, and progress reports concerning them will be issued from time to time in the months ahead.

The Committee recognizes, of course, that the responsibility to mesh the Massachusetts State College System planning process with those of other segments primarily rests elsewhere, and that this will involve, in the next phase of planning, an effort to more explicitly set forth the educational missions of all public institutions of higher education in the Commonwealth. Similarly, the Committee recognizes that the problem of analyzing enrollment trends in the Massachusetts State College System in comparison with those in other public segments and in the private sector has been undertaken by the Board of Higher Education and the Office of the Secretary of Educational and Cultural Affairs.

Renewal, whether individual or institutional, is never easy. But within the legislative mandate prescribed in the Willis-Harrington Act of 1965, the State College System has a clear call to plan for the years ahead.



The challenges noted in the Introduction confront the State Colleges during a watershed period which began with the passage of the Willis-Harrington Act in 1965. That legislation completely reorganized the Department of Education in Massachusetts and thereby made the year 1965 a critical date in the development of the State College System. It brought together nine State Colleges and two special purpose institutions into a System of interrelated and interdependent multi-purpose institutions under the jurisdiction of an autonomous governing Board of eleven lay Trustees. Furthermore, it vigorously affirmed the mission of these institutions as "people's colleges" and in the process it established the statutory framework for the development of future educational policy by the Board of Trustees.

The legislative directives to the State Colleges found in the Willis-Harrington Act are clear. They include a mandate to "provide educational programs, research, extension and continuing education services in the Liberal, Fine and Applied Arts and Sciences and other related disciplines through the master's degree level." The law also charges the Board of Trustees to provide all appropriate educational programs for the citizens of the Commonwealth at each of the State Colleges, and to continue to make such policy, rules and regulations, as the Board finds necessary in fulfilling its public trust.

To meet these responsibilities, the Board declared at one of its first meetings in 1966, that it would immediately "... seek the improvement of education within the State Colleges by:

1. endeavoring to strengthen every aspect of the System;
2. developing a master plan for each college that will include curriculum expansion as well as capital outlay program;
3. actively seeking greater fiscal support;
4. establishing a new and improved salary schedule;
5. recommending new faculty positions and backup staff;
- and
6. initiating new and diversified programs where the need exists."

Since 1966, the Board has taken other major System-wide actions which include a policy expanding transfer opportunities for Community College students seeking entrance into the State Colleges; a policy affirming the need to involve students as well as faculty, administration, and alumni as partners in campus governance; a policy granting credit, through the College Level

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Examination Program (CLEP), for knowledge attained outside the classroom; an admissions policy enabling students in the Commonwealth to have greater access to the State Colleges through a combined application form; the enactment of a policy on Affirmative Action; and many others.

Within the framework and new sense of direction created by the Willis-Harrington Act, the State College System has undergone seven years of astonishing growth: a 70 percent increase in student enrollment, a 112 percent increase in land area, a 60 percent increase in teaching faculty, a 182 percent increase in operating budgets (the result of accommodating more students as well as many new academic programs), and a multi-million dollar capital outlay program.

Carrying on this momentum, the Board moved decisively in 1972 to set major goals for the State College System as a whole, with the expectation that each college, under the leadership of its President, would develop campus goals for timely submission to the Trustees for review. The Goals set by the Board for the State College System are:

1. To extend higher educational opportunities to the greatest possible number of students of all ages.
2. To continue to strengthen the quality and maintain the diversity of programs and institutions within the State College System without allowing unnecessary proliferation of programs, unwarranted duplication of effort or unnecessary programs for which there is a decreasing demand.
3. To develop academic programs and individual college specialties in several career and discipline areas, while maintaining a strong core of liberal arts programs at each State College.
4. To emphasize undergraduate teaching and to limit research and graduate education to a few critical areas.
5. To expand the extension, continuing education and public service functions of the State Colleges to meet the needs of all ages of citizens with differing interests.
6. To cooperate with other public and private institutions of higher education in program development and in the sharing of faculty and facilities.
7. To improve articulation between two-year colleges and

State Colleges and to facilitate student transfer from one to the other.

8. To develop liaison and cooperative relationships in areas of curriculum, data exchange, information flow between secondary and post-secondary institutions in the Commonwealth and within the State College System itself.
9. To continue to develop alternative means whereby students can gain knowledge, experience, and further their education outside the conventional State College classrooms, at a pace suited to their motivation and capabilities.

Hence, with that statement of the Board's goals for the 1970's, the Massachusetts State College System demonstrated still further its determination to respond to the shifting educational demands of the times. In this first report, the Long-Range Planning Committee has attempted to translate those general goals into a specific "agenda for renewal" – a series of action recommendations the Committee believes will enrich the quality of academic life throughout the System over a period of time.

These action recommendations have been fashioned from the dialogue on planning initiated by the Board some two years ago, and incorporate the ideas contributed by faculty, students, administrators, alumni, and other citizens of the State. These action recommendations also meet the challenge which Governor Francis Sargent set before the Trustees of all public higher education institutions at a meeting at Framingham State College on October 14, 1972. Taken together, the actions proposed in this document constitute not a rigid "Master Plan" for the System, but rather the next crucial steps in the master planning process – the agenda for which everyone involved in building the System must, in the opinion of the Committee, be held accountable.

Beginning on page 31, this agenda is presented for implementation in four major areas:

1. *Expanding Access to Learning*
2. *Improving the Quality of Learning*
3. *Strengthening the Teaching Function*
4. *Increasing Options through Learning Alternatives*

Each of these major areas contains briefly stated recommendations followed, where appropriate, by a rationale for each recommendation being made.



*Economic Needs of the Commonwealth of Massachusetts
in the 1970's and Their Impact on the Massachusetts
State College System*

The Commonwealth of Massachusetts is the population and economic center of New England. The citizens of Massachusetts have always had a high *per capita* income in comparison with other states of the United States, and the state has had extensive industrial and urban development. In 1967, only 11.2% of Massachusetts households had a family income of less than \$3,000, which was considered to measure the poverty line. Only California and Connecticut had a smaller percentage of poor. In contrast 20.2% of all the families in the nation had an income less than \$3,000 per year. On the upper end of the scale, 26.0% of its families had an income greater than \$10,000, compared to a national average of 24.5%.¹

In 1969 the total personal income for Massachusetts was determined to be \$22,722,000,000 – 9th among the 50 states.² In 1970 it had risen to \$24,852,000,000, with comparative estimates for the 1971 year of \$26,763,000,000 (a 7.7% increase in one year) which is 10th in the United States.³ Only 9 states produce a higher total personal income than Massachusetts, in the following order: California, New York, Illinois, Pennsylvania, Ohio, Texas, Michigan, New Jersey, and Florida.

Economic Development in the 1970's

Massachusetts' production of economic wealth, when compared with the difficult circumstances in which it takes place, is an amazing human accomplishment. A report of the Massachusetts Advisory Council on Education emphasizes this as follows:

Even though the region suffers from a great variety of locational handicaps – high transport costs, tax rates and cost of living, distant markets, poor soils and bad weather – it has successfully competed in national markets. Although its major advantage was a headstart which was only an historical accident, it now possesses many man-made advantages – external economies and increasing specialization in high skill, technically oriented, labor-intensive industries.⁴

Historically, the entire geographic area provided textiles, shoes, hand tools, and weapons in addition to profiting from the “triangle of trade.” In recent years the textile and shoe industries

have become severely depressed. For example, in 1971 the closing of an additional 20 shoe factories cost 5,540 jobs. (Paraphrased from Maxwell Field, Executive Vice President of the New England Footwear Association, *Business Week*, January 8, 1972, page 76.) But a change to diversified manufacturing, with a great deal of emphasis on electrical machinery, has filled much of the gap.

A recent economic analysis of New England has emphasized the fundamental changes which are taking place in the economy of New England and Massachusetts.⁵

Representatives of the State Planning Commission, the Department of Employment Security, the Executive Office of Manpower Affairs, and the Office of Science and Technology recently agreed that the best total economic study available in 1972 was the Arthur D. Little report. In studying major industry groups, the Arthur Little analysts found that the entire future development of key industries, and thus the increasing personal income base, depends upon the continuing support and development of the professional and skilled labor force. For example, in non-electrical machinery they note that, in spite of being sensitive to cyclical business fluctuations because of dependence upon capital equipment expenditures "... with generally highly skilled workers and professionals and a responsiveness to technological improvements in production, the industry has performed well relative to the nation, and its prospects are very encouraging."⁶ The same facts are true of the electrical machinery, communications and electronics equipment industries concentrated in the greater Boston area. In fabricated metal products, a highly skilled labor force is critical. The future of the paper and allied products industry depends on the use of new technologies, which emphasize skilled manpower. In printing and publishing, the report emphasized that

because of New England's high concentration of educational institutions and service industries (e.g., finance and insurance), the future of printing and publishing in New England is bright. An industry that is highly concentrated and increasingly capital-intensive, it is centered in Boston, a major national publishing area. New technological advances, such as in photo-composition, are almost certain to influence growth and relative composition of labor and capital. New media are also influential – television and education films, for example – but

publishing will probably remain less vulnerable. Among all nondurable industries, this group seems likely to require an increase in employment despite its capital intensity.⁷

The same generalizations are also true of possible future development of rubber and plastics; here, the Little report once again emphasized the area's "... strongest factor, a highly-trained labor force of skilled craftsmen exposed to threshold technological developments arising from New England's high professional and managerial competence. This same thread runs throughout our entire analysis of the New England economy."⁸

In addition to the emphasis on high technology industries, there is a major additional trend in Massachusetts toward all types of "services."

Most service industries were shown to have a very high proportion of professional workers: 65.7 percent in education, 46.1 in medical services and 42.2 percent in welfare; and most other growth industries have a considerable proportion: 18 percent in electrical machinery, 13.6 percent in chemicals. However, between 1950 and 1960, professional workers increased by over 69,000, so continuing increase in the demand for professional workers can be foreseen. A similar increase is likely for service workers.⁹

In the past 20 years, the greatest increases in employment throughout Massachusetts have been in professional occupations.¹⁰ This rate of increase has been considerably greater than in the United States as a whole and until 1969-70 made it possible for Massachusetts to maintain its favorable economic, cultural, and social conditions.

The future of New England's economy appears to rest with the new technologically-oriented manufacturing and service industries rather than with old-line industries such as textiles, shoes, leather, and apparel. To repeat, it is therefore dependent on a highly skilled labor force. Of the projected increase in employment in Massachusetts between 1960 and 1980, 23 percent is estimated to be in professional occupations, all of which require a high degree of education. This implies extra pressure upon the existing educational system, and the question is asked whether this demand for education can be met. . . .

ment, been well-endowed with excellent educational institutions, both public and private, it is vital for the strength of the region's economy that these establishments not only maintain their quality but also extend their facilities. Similarly at lower educational levels. Massachusetts needs to maintain and improve its position with regard to secondary schools and technical training.

If the expansion of the educational system, which is necessary to provide sufficient highly skilled labor, does not occur, it is likely that Massachusetts, and New England in general, will find it difficult to compete with other regions of the United States which are more richly endowed with natural resources and locational advantages.¹¹

Finally, in reviewing regional obstacles and opportunities, the Little report stressed

... the promise of high growth. New modes and techniques of transportation have "reduced" distance, shortened delivery time, lowered raw materials and energy costs, and lessened competitive disadvantages. These include air cargo, interstate highways, containerization, high-speed rail and truck service, high ocean-going tankers. Low-cost nuclear power generation is fast reducing the age-old dependence on high-cost fossil fuels for energy. Important future segments of the aircraft and ship-building industry are firmly established in the region. Entirely new products and new industries continue to appear and expand, fed by an unexcelled technological input from the region's educational, scientific, research and development, and medical community. The region's entrepreneurial, management and professional skills are unmatched in the world economy, and its highly trained labor force retains the craftsmanship of traditional industries. The provision of valuable services, many of them exportable, has become much more important to the regional economy than the production of goods.

As a result, New England's unique opportunity presents itself in the form of its human resources. The potential for high productivity gains lies in the application of these resources to low-weight (or weightless) raw materials to produce finished commodities (or services), readily transportable to tomorrow's high-technology markets. These are the growth markets, and they are the markets New England has developed the capa-

bilities to serve. Thus, New England's output will become increasingly high-valued per unit, capital-intensive, service-oriented, economically exportable, and – most important – sought after in the marketplace.¹²

Future Manpower Needs in Massachusetts

The Division of Employment Security of the Commonwealth of Massachusetts completed in October, 1971, an analysis of the anticipated requirements for manpower in the Commonwealth to 1975.¹³

The methodology followed by the Division of Employment Security was developed cooperatively with the Bureau of Labor Statistics of the United States Department of Labor. An economic model was prepared which included the development of an occupational matrix of 116 industries and 150 occupations. Extensive historical series were established and estimates of industry and employment were made based on a set of six assumptions as follows:

1. A national unemployment rate of 3 percent is attained in 1975.
2. No major event such as a prolonged depression of the type of the early 1930's will occur to alter substantially the rate and nature of economic growth.
3. Scientific and technological advances of recent years will continue at about the same rate of change.
4. Economic and social patterns and relationships will continue to change at about the same rate as in the recent past.
5. Based on the assumption that the Vietnam conflict will have been over for some time by 1975, defense expenditures will hold at about the 1955-65 rate.
6. In practically all industries national export-import trends between 1949 and 1968 will continue to 1975.¹⁴

From this complicated system it was possible to develop a total estimate of labor demand in all types of professional, technical, craft, and unskilled workers. Employment in 1968 in each of these many areas was determined as a base and employment needs in 1975 were determined as a target, based on growth and deaths

and retirements. From these figures the total net demand in all types of specific occupations was developed and detailed.¹⁵

A few of the highlights of the study are as follows: (1) there is a shift toward the service sectors – personal, business, medical and educational, private as well as governmental – and away from employment in the production of goods; (2) an additional 208,500 workers will be required between 1968 and 1975 to fill new jobs and 519,200 will be needed to replace workers leaving the labor force for all varied reasons; (3) the occupational composition of the work force will continue to shift away from low-skilled fields of work toward occupations emphasizing services and professional, technical, and clerical skills; (4) a high proportion of new jobs will be centered in industries which even now have special problems in manpower planning and training; (5) total employment will increase at an annual rate of 1.1% from 2,357,100 in 1968 to 2,541,400 in 1975. Of the increases 146,000 will be in the service sector, including personal, business, medical, and educational services. The major industry groups which will provide new jobs in the 1968-75 period are shown in the following list of growth industries.

In the *New England Report* published by the First National Bank of Boston on December 19, 1972, the following industries were singled out as possessing unusual growth potential: electrical equipment and supplies, nonelectrical machinery; chemicals and allied products; transportation equipment; and instruments and related products. In addition, the Report projected, "accelerated growth in industries such as insurance, banks, medical services, and engineering consulting." It stressed that one of the major assets of the state was its highly educated manpower and indicated "in our opinion, one of the greatest duties of state government is to educate."

Any planning designed to create jobs and expand industrial capability must provide expanded educational opportunity, particularly in post-secondary education, throughout the Commonwealth. With 98,000 new jobs needed each year and only 15,000 being created per year, development in post-secondary education was, and is in 1973-1980, a critical and important component of the necessary growth strategy for the state.

Fortunately, the manpower study of the Division of Employment Security is quite complete. Massachusetts is one of the few states

which has made such a complete forecast of future occupational needs. In his preface to the study Herman V. LaMark, Director of the Division of Employment Security, points out that "... there are few jobs whose content and outlook are not constantly changing. New technologies and new life styles are making old trades obsolete and creating new patterns of work. The choice of skills for which training should be given has become one of the most difficult tasks of government." Fortunately, the results of this manpower study make it possible to determine the curricular fields in which the Massachusetts State College System is now providing opportunities for citizens to prepare for current occupational needs and for the system to plan necessary curricular adaptations in the near future.

Table One

Massachusetts Growth Industries 1968-1975

Growth Industries Selected Categories	Change 1968-1975	
	Number	Percent
All Industries	184,300	7.8
Construction	20,600	16.2
Transportation, communication, and public utilities	10,400	8.0
Motor freight transportation	5,300	17.3
Air transportation	1,800	25.4
Communications	11,000	41.4
Electric, gas, sanitary services	-2,800	-8.6
Trade	41,600	8.3
Wholesale	15,500	13.1
Retail	26,100	6.8
Finance, insurance, real estate	10,100	8.2
Services	146,100	23.7
Medical and health	35,300	21.3
Education	57,500	31.2
Public Administration	21,800	20.1

Note: This table presents, with a single exception, a selection of growth industries with increasing employment. Since the list of industries is incomplete, the total and sub-totals are not necessarily the sums of the categories listed.

Contribution of the Massachusetts State College System to Massachusetts Manpower Needs

The diversification of the programs in the Massachusetts State Colleges within the past 5 years and its effect on future manpower needs in Massachusetts is shown dramatically in Table



Two. Of course, the historical major purpose -- the education of teachers -- shows its influence. The demands for teachers of all types is forecast as 37,279 between 1968 and 1975. At the present time it appears that the Massachusetts State College System will provide 42% of the supply of first-time appointees in such positions. The large number of graduate students not elsewhere classified (9,913) appears to be primarily in-service teachers working on graduate programs, many of them on a part-time basis. In addition, many of the undergraduates enrolled in nonteaching programs and not classified in the special fields of the table (mostly in the humanities and social science fields) may end up as teaching candidates and increase the proportion of the total demand for teachers which will be supplied by the Massachusetts State College System.

However, the number of students in nonteaching majors has rapidly increased, particularly as the variety of degree programs has expanded. A comparison has been made of the occupational needs in a number of appropriate fields with the number of students enrolled in these major fields at each of the various Massachusetts State Colleges, and the totals are shown in Table Two. Six breakdowns are shown, for demand and supply in natural science; engineering-technical; medical and other health workers; social science and other professional, technical; managers, officials, proprietors; and other. "Demand" figures for each of the items on the table are derived from Table VI of the manpower study of the Division of Employment Security.¹⁶ "Supply" is derived from the reports of each of the State Colleges for the number of persons majoring in each field in the fall semester in 1971-72. Summary figures are provided in the table, and the breakdown by colleges is provided at the end of this chapter.

Of course, some of the students now enrolled in each of the various fields will drop out of college or will change majors before completing a degree. On the other hand, by 1975 the enrollments of the colleges will be much larger and, if the trend lines are steady, a continually larger proportion of students enrolled in 1971-72 will graduate by 1975; thus, the current total enrollment in the various fields appears to be a crude but logical estimate of the supply of specialized professional personnel which the Massachusetts State College System will graduate in the period ending in 1975. At the least, it is a beginning base for estimation of the contribution of the Massachusetts State Colleges to the manpower needs of the Commonwealth.

Table Two

Comparison of Massachusetts Manpower Requirements and One Source of Trained Manpower as Represented by the Massachusetts State College System's Current Enrollment

Net Demand Manpower Requirements 1968-1975 ^a	Demand	Supply ^b
<i>All Teachers</i>	37,279	15,645*
Elementary Teachers	14,434	6,282
Other Teachers (Secondary, College, Other)	22,845	9,363
<i>Natural Scientists</i>	3,494	1,345*
Chemists	1,918	94
Biological Scientists	311	437
Geologists	105	1
Mathematicians	412	653
Physicists	654	22
Other Natural Scientists	35	138
<i>Engineers, Technical</i>	21,951	946*
<i>Medical & Other Health Workers</i>	37,068	1,663*
Dietitians, Nutritionists	796	22
Nurses, Professional	18,528	342
Psychologists	732	1,147
Technicians, Medical, Dental	7,129	132
<i>Social Scientists and Other Professional, Technical</i>	63,421	1,716*
Economists	420	112
Other Social Scientists	114	34
Workers in Arts, Entertainment	9,389	684
Designers, except Design Draftsmen	1,190	186
Librarians	2,814	54
Photographers	528	NA
Social and Welfare Workers	3,659	596
<i>Managers, Officials, Proprietors</i>	45,387	871*
<i>Other</i>		
Nurses, Practical	14,029	188*
Law Enforcement	4,232	218*
		7,975*
		9,913*

^aMassachusetts Department of Employment Security, *Massachusetts Manpower Requirements to 1975*. Boston, Massachusetts, October, 1971, Table VI, pp. 45-48. (In cooperation with the Bureau of Labor Statistics, United States Department of Labor.)

^bThe sum of the figures having asterisks (40,480) is approximately equal to the total enrollment in the Massachusetts State College System. Total numbers of students listed by major fields are somewhat less than gross enrollment (head-count) for each college and the total system. This may be due to the presence of students in the system who have not declared a major field.

Net Demand Manpower Requirements 1968-1975 ^a	Demand	Supply ^b
<i>All Teachers</i>	37,279	15,645*
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Technicians, Medical, Dental	7,129	152
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Economists	420	112
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Workers in Arts, Entertainment	9,389	684
Designers, except Design Draftsmen	1,190	186
Librarians	2,814	54
Photographers	528	NA
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Nurses, Practical	14,029	188*
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		7,975*
		9,913*

^aMassachusetts Department of Employment Security, *Massachusetts Manpower Requirements to 1975*. Boston, Massachusetts, October, 1971, Table VI, pp. 45-48. (In cooperation with the Bureau of Labor Statistics, United States Department of Labor.)

^bThe sum of the figures having asterisks (40,480) is approximately equal to the total enrollment in the Massachusetts State College System. Total numbers of students listed by major fields are somewhat less than gross enrollment (head-count) for each college and the total system. This may be due to the presence of students in the system who have not declared a major field.

Supply Minus Demand	% Supply Is of Demand	Net Supply – as Represented by Currently Enrolled Students in the Massachusetts State College System ^c
-21,634	42%	All undergraduates currently enrolled in a program of teaching orientation
-8,152	44%	All undergraduates currently enrolled in elementary education
-13,482	41%	All undergraduates currently enrolled in a program of teaching orientation minus those in elementary education
-2,150	38%	All graduate and undergraduate students in nonteaching orientation programs listed:
-1,824	5%	Chemistry
+126	141%	Biology
-104	1%	Chemistry-Geology
+241	158%	Mathematics
-632	3%	Physics
+103	394%	Earth Science, Natural Science, General Science
-21,005	4%	Engineering and Technology (Elect., Ind., Mgmt., Marine, Comp. Sci.)
-35,405	4%	
-774	3%	Food and Nutrition Master's Programs
-18,186	2%	Four-Year Nursing Programs
+415	157%	Psychology and School Psychology Master's Program
-6,977	2%	Medical Technology
-61,705	3%	
-308	27%	Economics
-30	74%	Social Science
-8,705	7%	Art and Fine Arts
-1,004	16%	Design
-2,760	2%	Library Science and Librarianship Master's Programs
—	—	Photography majors are included in the Fine Arts Program listed above
-3,063	16%	Sociology
-44,516	2%	Business Administration
-13,841	1%	One-Year Nursing Programs
-4,014	5%	Law Enforcement
		Total other undergraduates enrolled in nonteaching programs, not elsewhere classified.
		Total graduate students not elsewhere classified.

^cExact enrollment breakdowns by institution, by academic program are given at the end of this chapter.

In the area classified as "natural scientists" the Massachusetts State Colleges, as a whole, will provide some net supply in all fields except agricultural scientists. Against a demand of 3,494 from the remaining natural science fields 1,345 persons are currently majoring in these fields. In chemistry there are 94, in biological science 437; there are 653 mathematicians, 22 physicists, 1 geologist, and 138 other natural scientists. Comparing the supply with the demand, the State Colleges will provide 38% of the "natural scientists" needed in the state during this period. In fact, they will produce an oversupply, for the entire state, of biological scientists and mathematicians. Undoubtedly many of the nonteaching biological scientists and mathematicians will end up moving into the teaching profession. On the other hand, it is important that the State Colleges are beginning to contribute chemists and physicists for the specialized economy even though the percentages are only 5% and 3% respectively.

The total demand for new engineers in the manpower study is shown as 21,951. Nine types of "engineers, technical" are differentiated in the manpower study ranging from aeronautical to mining, with a fairly large catchall area. The four large areas of demand are civil, electrical, industrial, and mechanical. The Massachusetts State Colleges currently have an enrollment of 946 students in major fields within these classifications. Three hundred and thirty-three are at Massachusetts Maritime Academy in marine engineering or transportation. The remaining 613 are at Fitchburg with 463 in the Bachelor of Science Degree program in industrial sciences supported by the Raytheon Corporation, and 150 in the evening college program.

Areas of concentration of these students are in electrical technology, computer science, industrial management or technology, and manufacturing or mechanical technology. These programs are critical manpower resources for the future technological development in the state of Massachusetts and constitute 4% of the total supply. Fitchburg also provides the bachelor's and master's degrees in industrial education. Throughout the United States many persons with this type of background go into industrial technology and other types of work related to engineering. Students in these fields are not counted as part of the total supply in the engineering, technical area but, in fact, a number of them will undoubtedly end up working in this area.

One of the most rapidly developing fields of service in the United

States is that denoted as "medical and other health workers." It is significant that 4% of the need for dietitians and nutritionists, 3% of the need for professional nurses, and 2% of the need for medical technologists can be filled by students currently enrolled in the State Colleges. "Psychologist" is difficult to determine and to define. In the field itself there is a preference for persons with a doctorate to be allowed to use the term "psychologist." With the graduate programs for school psychology and the bachelor's degree programs in psychology, there is an extensive source of supply for psychologists with this type of background. Accurate predictions of supply and demand in the psychology field will require more complete criteria and determination of need for doctoral study for the 732 psychologists currently listed as the "demand" for this type of specialist.

The areas of "social scientists" and "other professional, technical" in the manpower study have been combined as one section in this table. Once again in discussing "economists and other social scientists" the criteria do not specify whether or not the demand requires persons with doctoral training. If not, it appears that the State Colleges can supply 27% of the economists and three-fourths of the other social scientists. Social and welfare workers are considered separately, of course, and 16% of the total need can be met from the State Colleges if only sociology majors are considered. Of course, in hiring social welfare workers, persons from other fields are often employed, particularly people from the field of psychology. In the manpower study, separate figures are given for statisticians and actuaries and for accountants and auditors. Some students from business administration or mathematicians may very well qualify for positions in these two fields. However, it was impossible to obtain a breakdown of students in subfields of business or mathematics and thus no estimate is possible of the supply of persons in these critical fields which will come from the State Colleges. This is unfortunate since there is a net demand for 7,802 accountants and auditors and 466 statisticians and actuaries.

The Massachusetts State Colleges will provide 7% of the needed workers in the arts and entertainment field and 16% of those needed in the design field. The need for librarians is quite large and the State Colleges, significantly enough, will be able to supply only 2% of this overall need. Finally, in this area, photographers are specified as a significant area of demand, with 2,335 to be employed in 1975 and a need for 528 new ones in

this figure. Photography is offered at the Massachusetts College of Art and many of the fine arts and design students take work in the field. At the present time it is impossible to "break-out" a specific figure in this field. Nevertheless, it is evident that a significant percentage of the supply of photographers will come from this one college.

In the business and administration field and the preparation of managers, there is a very small development in the Massachusetts State College System. Only two colleges offer majors in business administration and will provide only 2% of the needs of the state in this critical area. Most comparable state colleges have programs varying from 10-20% of their entire student body in this field. This is an area of serious shortage and undoubtedly will expand in the future.

In the two "other" programs, the practical nurse is not a baccalaureate degree program but one state college was offering it as a special service to its area in 1971-72. This is an area of great need which is normally provided by vocational schools or community colleges. On the other hand, the area of law enforcement is growing in the State Colleges and major fields of study are provided at two colleges at the present time, potentially supplying 5% of the demand.

It can be seen clearly from this analysis that the Massachusetts State College System has broadened its areas of service to the social and economic needs of the Commonwealth of Massachusetts since the new Board of Trustees was established. This development parallels comparable developments all over the United States. Within the institutions there is a readiness to meet the needs of the state of Massachusetts for the specialized manpower which will be critical for the future social and economic development of the Commonwealth.

During recent years the Massachusetts legislature has increased its level of support for public higher education in Massachusetts, including the Massachusetts State Colleges. These facts are well illustrated by the following list from *The Chronicle of Higher Education*, January 3, 1972, page 4. Some of these data are inexact since they reflect only original budgets and leave out supplementary budgets and adjustments. Nevertheless, they provide good indications of overall percentage growth areas.

Institution	1971-72 Appropriation	2-Year Change
U. of Massachusetts	\$ 58,614,000	+47%
<i>State Colleges:</i>		
Boston	5,827,000	+43%
Bridgewater	4,486,000	+57%
Salem	4,423,000	+41%
Worcester	3,148,000	+65%
Fitchburg	3,061,000	+51%
Westfield	2,700,000	+43%
Framingham	2,660,000	+49%
Lowell	2,476,000	+36%
North Adams	1,593,000	+83%
College of Art	1,260,000	+97%
Maritime Academy	853,000	+65%
Board of Trustees	324,000	- 6%
Lowell Tech. Inst.	6,935,000	+41%
SE Mass. U.	4,883,000	+41%
Community Colleges	19,730,000	+79%
Board of Higher Education	7,235,000	+70%
Total	<u>\$130,212,000</u>	<u>+53%</u>

Undoubtedly these improvements have been an important factor in the continuing development of the Massachusetts economy during the past decade. Nevertheless, Massachusetts is not strongly supportive of public higher education, on a *per capita* basis. Various studies indicate that it stands 49th out of the 50 states in support of public higher education. For example, a recent study by M.M. Chambers indicates that the appropriation *per capita* is \$22.72, followed only by New Hampshire. The national average appropriation *per capita* is \$37.85 and other states in the top 10 in population and in total personal income run considerably higher (*The Chronicle of Higher Education*, January 3, 1972, page 1). Another study indicates that *per capita* state and local government expenditures for higher education in 1971 place Massachusetts 41st, with an expenditure of \$37.56, compared with the national average of \$69.78 (*State Government Finances in 1971*, pp. 12-13, U.S. Department of Commerce, Bureau of Census).

These expenditures for higher education are extremely different from some other types of expenditures. For example, Massachu-

setts rates high among the 50 states in *per capita* expenditure of state and local governments for health and hospitals (in 1967-68, 5th), for police protection (in 1967-68, 10th), and for fire protection (in 1967-68, 1st). Obviously, Massachusetts has the money in the form of disposable income to support those public services which it finds are essential.

Massachusetts has always been a leader – in fact, a bellwether – among the critical states of the United States, those which are largest in population, largest in industrial, commercial and personal income, and which take the lead in developing new or changed social institutions. In its economic development in the 1970's, the Commonwealth will be dependent on "threshold technological developments," the developing "knowledge" industry, and a major shift in the other specialized service industries. In order that this development can take place, a highly trained labor force with increasing educational background will be necessary. In addition, "retooling" of even the most highly trained and competent persons will be critical. These educational needs will place increasingly serious demands upon the educational facilities in Massachusetts and particularly on those which are publicly supported.

Sources of Trained Manpower Supply – The Massachusetts State College System

Manpower Requirement Designations are taken directly from *Massachusetts Manpower Requirements to 1975*, Boston, Massachusetts, October, 1971, Table VI, pp. 45-48. Enrollment figures and State College System Program Designations were obtained from individual colleges by survey in December of 1971.

Manpower Requirement Designations	Enrollment in Programs in the Massachusetts State College System
--------------------------------------	--

All Teachers – All undergraduates enrolled in programs of teaching orientation.

	Undergraduates	Graduates
Boston	1,815	0
Bridgewater	3,155	0
Fitchburg	2,611	0
Framingham	1,009	0
Lowell	423	0
College of Art	199	0

Enrollment in
Programs in the Massachusetts
State College System

Manpower Requirement
Designations

	Undergraduates	Graduates
North Adams	1,025	0
Salem	2,421	0
Westfield	1,240	0
Worcester	1,747	0
	<u>15,645</u>	<u>0</u>

Elementary Teachers -- All undergraduates currently enrolled in programs of elementary education.

	Undergraduates	Graduates
Boston	651	0
Bridgewater	1,477	0
Fitchburg	637	0
Framingham	507	0
Lowell	279	0
North Adams	482	0
Salem	992	0
Westfield	640	0
Worcester	617	0
	<u>6,282</u>	<u>0</u>

Other Teachers -- All undergraduates currently enrolled in programs of teaching orientation minus those in elementary education.

	Undergraduates	Graduates
Boston	1,164	0
Bridgewater	1,678	0
Fitchburg	1,974	0
Framingham	502	0
Lowell	144	0
College of Art	199	0
North Adams	543	0
Salem	1,429	0
Westfield	600	0
Worcester	1,130	0
	<u>9,363</u>	<u>0</u>

Social and Welfare Workers -- All undergraduates enrolled in "nonteaching orientation" sociology.

	Undergraduates	Graduates
Boston	210	0
Bridgewater	180	0
Lowell	103	0
Worcester	103	0
	<u>596</u>	<u>0</u>

Enrollment in
Programs in the Massachusetts
State College System

Manpower Requirement
Designations

Managers, Officials, Proprietors – All undergraduates enrolled in business administration.

	Undergraduates	Graduates
North Adams	186	0
Salem	685	0
	<u>871</u>	<u>0</u>

Nurses (Practical) – All undergraduates enrolled in 1-year nursing programs.

	Undergraduates	Graduates
Worcester (1-yr. program)	188	0
	<u>188</u>	<u>0</u>

Law Enforcement – All undergraduates enrolled in "nonteaching orientation" law enforcement.

	Undergraduates	Graduates
Boston	190	0
Westfield	28	0
	<u>218</u>	<u>0</u>

Nurses (Professional) – All undergraduates enrolled in 4-year nursing programs.

	Undergraduates	Graduates
Lowell	204	0
Salem	138	0
	<u>342</u>	<u>0</u>
Fitchburg	over 325	

Psychologists – All undergraduates enrolled in "nonteaching orientation" psychology and graduate students enrolled in school psychology.

	Undergraduates	Graduates
Boston	264	0
Bridgewater	211	0
Fitchburg	7	42
Framingham	126	0
Lowell	141	0
North Adams	110	0
Salem	59	0
Westfield	49	20
Worcester	118	0
	<u>1,085</u>	<u>62</u>

Total 1,147

Manpower Requirement Designations	Enrollment in Programs in the Massachusetts State College System
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Technicians: Medical, Dental – All undergraduates enrolled in medical technology.

	Undergraduates	Graduates
Framingham	78	0
Lowell	26	0
North Adams		0
	152	0
Fitchburg	100+	

Economists – All undergraduates enrolled in "nonteaching orientation" economics.

	Undergraduates	Graduates
Boston	80	0
Salem	9	0
Worcester	23	0
	112	0

Chemists – All undergraduates enrolled in "nonteaching orientation" chemistry.

	Undergraduates	Graduates
Boston	30	0
Bridgewater	13	0
Fitchburg	2	0
Framingham	22	0
North Adams	8	0
Salem	11	0
Worcester	8	0
	94	0

Biological Scientists – All undergraduates enrolled in "nonteaching orientation" biology.

	Undergraduates	Graduates
Boston	124	0
Bridgewater	70	0
Fitchburg	28	0
Lowell	54	0
North Adams	20	0
Salem	76	0
Worcester	65	0
	437	0

Manpower Requirement Designations	Enrollment in Programs in the Massachusetts State College System
--------------------------------------	--

Geologists -- All undergraduates enrolled in "nonteaching orientation" chemistry-geology.

	Undergraduates	Graduates
Bridgewater	1	0
	1	0

Mathematicians -- All undergraduates enrolled in "nonteaching orientation" mathematics.

	Undergraduates	Graduates
Boston	188	0
Bridgewater	25	0
Framingham	79	0
Lowell	79	0
North Adams	1	0
Salem	140	0
Westfield	94	0
Worcester	47	0
	653	0

Other Natural Scientists -- All undergraduates enrolled in "nonteaching orientation" programs as indicated.

<i>Earth Science</i>	Undergraduates	Graduates
Boston	38	0
Bridgewater	16	0
Framingham	16	0
Lowell	1	0
Salem	15	0

Natural Science

Boston	20	0
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General Science

Westfield	32	0
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Total Other Natural Scientists	138	0
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<i>Engineers, Technical</i>	Undergraduates	Graduates
Fitchburg	613	0
Maritime Academy	333	0
	946	0

Physicists – All undergraduates enrolled in "nonteaching orientation" physics.

	Undergraduates	Graduates
Boston	7	0
Bridgewater	7	0
Fitchburg	2	0
Worcester	6	0
	22	0

Dietitians and Nutritionists – All graduate students enrolled in food and nutrition master's programs.

	Undergraduates	Graduates
Framingham	0	22
	0	22

¹The Commonwealth of Massachusetts, *Third Report of the Special Commission to Develop A Master Tax Plan Relative to the Massachusetts Economy and Its Growth Potential*, Senate No. 1315, February, 1971, p. 17.

²U.S. Dept. of Commerce *Survey of Current Business* 50, August 1970, p. 34 (Data secured from "Rankings of the States, 1971," p. 30, Research Report 1971-R1, Research Division of the National Education Association, Washington, D.C.).

³*Business Week* (January 8, 1972), p. 76.

⁴Carl J. Schaefer and Jacob J. Kaufman, *Occupational Education for Massachusetts*, a report prepared for the Massachusetts Advisory Council on Education, June, 1968, p. 205.

⁵Arthur D. Little, Inc., *New England: An Economic Analysis*, a report prepared for the New England Regional Commission, Cambridge, Massachusetts, November, 1968.

⁶*Ibid.*, p. 11.

⁷*Ibid.*, p. 13.

⁸*Ibid.*, p. 14.

⁹Schaefer and Kaufman, *op. cit.*, p. 225.

¹⁰*Ibid.*, pp. 216-217.

¹¹*Ibid.*, p. 227.

¹²Little, *op. cit.*, pp. 16-17.

¹³Division of Employment Security, Occupational Research Department, Commonwealth of Massachusetts, *Massachusetts Manpower Requirements to 1975*, Boston, Massachusetts, October, 1971, pp. 1-6.

¹⁴*Ibid.*, pp. 14-15.

¹⁵*Ibid.*, pp. 45-48.

¹⁶*Ibid.*, pp. 45-48.



*Expanding Access
to Learning*

In order to fulfill its commitment to the people of Massachusetts, and to implement its own goals #1, #7 and #8, set forth on pages 6 and 7, the Board of Trustees shall implement the following programs to provide all citizens with the broadest possible access to educational opportunity within the State College System.

Action Program: Transfer Access

Effective September 1, 1974, students earning an associate degree in a transfer program at a two year college which is signatory to the Massachusetts Transfer Compact (Appendix C) shall be admitted, after application, to a baccalaureate degree program in the State College System within the limits of space and program. Each college shall make a determined effort to increase the number of seats reserved for such transfer students at the junior year level. On March 1st of each year, each college President shall submit a progress report¹ to the Board of Trustees through the Long-Range Planning Committee showing the growth rate in transfer student admissions over previous years.

Rationale for Action: Transfer Access

A primary component of the Board's present effort to expand educational opportunity is the relationship between the eleven State Colleges and the two year institutions in the Commonwealth. In the future, should it be proven feasible, it is possible that one or more of the State Colleges may become primarily an upper-division institution drawing its student body almost wholly from the state's two year institutions, both public and private. While recognizing this possibility, the Board's immediate effort to improve articulation between the State Colleges and the junior and community colleges focuses attention on the Massachusetts Transfer Compact (Appendix C). Hence, students who complete a transfer program in a two year college which is signatory to the Massachusetts Transfer Compact shall be afforded, within space and program limitations, an opportunity to complete the baccalaureate degree in the Massachusetts State College System. Any transfer student who is afforded this opportunity will be expected to complete those requirements specified by his or her major department as applicable for every other student already enrolled in that major at the college.

¹All reports to the Long-Range Planning Committee called for in this report shall be submitted through the Provost.

The Massachusetts State College System should endeavor, in appropriate ways, to provide comparable services for both transfer and freshman applicants in the critical areas of pre-application information, financial aid, counseling, housing and orientation. In addition, before he or she is asked to respond to an offer of admission, the transfer applicant should be notified of the specific course credits or equivalents to be granted upon enrollment, including the total credit to be awarded and the estimated number of semester hours necessary to complete the degree. The two year institutions shall be asked to work closely with the State College System in preparing, at least a year in advance, a forecast of the numbers of students who are expected to seek junior year admission to the State Colleges.

In the interest of broadened communication, the Central Office of the State College System shall conduct research on the total transfer process, including student attitude surveys and retention studies. Results will be published and shared with the two year colleges to identify any problem areas.

Action Program: Outreach

By March 1, 1974, each college President, after a campus study, involving students, faculty, and administrators, shall submit to the Long-Range Planning Committee an "outreach" program for recruiting, counseling, and tutoring students who have traditionally had limited access to higher education, including among others, minority students, veterans, and working adults. These programs shall become effective not later than September 1, 1974. In addition, each college shall make a determined effort to support these programs through the regular operating budget of the college. Since these programs represent, at best, a partial response to the State-wide needs of specific populations of students, the Provost and his staff shall assist in coordinating these outreach programs with similar program efforts made by other institutions of higher education within the Commonwealth. In the development of outreach programs, the Trustees' policy on Affirmative Action shall guide each State College in making a renewed and special effort to recruit, enroll, and employ minorities as part of its regular day-to-day process as well as through special programs and activities. Each outreach program shall aim to provide recruitment, counseling, and tutoring services to these students in their own home communities.

Each college shall make a determined effort to increase, over and above current commitments, the number of freshman places available for such outreach students. Moreover, each program shall make provisions for expanding supportive services for these students after their admission to college. Such supportive services shall include, among others, tutorials, and both academic and personal counseling. College students should be involved in providing such tutoring and counseling to fellow students. Moreover, opportunities for the improvement of basic communication, reading, mathematics, and study skills shall be made available to all outreach students prior to formal admission to college. In so doing, every effort should be made to obtain the cooperation of secondary schools and other colleges and universities within the public and private sector. On June 1st of each year, each college President shall submit as part of an annual report, a status report to the Board of Trustees through the Long-Range Planning Committee showing the growth rate in admission of such outreach students and evaluating the general success of the program.

Rationale for Action: Outreach

There exist an increasing number of new students who desire access to college, but to whom access has previously been limited. Housewives, veterans, the elderly, and working adults constitute groups which have been removed from the educational setting and who now desire the opportunity to develop their potential and to learn new skills that will enhance their social and economic mobility. In addition, access to higher education must be expanded to minority group populations within the Commonwealth. According to a recent report prepared by Dr. Willard R. Johnson of M.I.T. for a major policy study of Higher Education in Massachusetts, minority students currently constitute only 3.7 percent of the total enrollment of the State College System. This figure is significantly less than that for the University of Massachusetts (7.7%) and that for institutions of private higher education in Massachusetts (6.6%). Minority enrollment in the State Colleges fails to achieve the proportions of minority population ratios for the state itself. These are revealing facts, considering that these publicly supported institutions should exist as natural entry-points to higher education for minority students, many of whom cannot meet the cost of attendance at private institutions.

To insure an avenue of access to all these outreach students, each of the State Colleges shall establish a program of recruit-

ment, counseling and tutoring of these students in their own home communities.

Once admitted, these outreach students shall, as necessary and appropriate, be given additional assistance in such areas as reading, study skills, tutorial services, academic, personal, and career counseling, and a range of cultural, social and educational programs designed to enhance their intellectual and social adjustment to college. Continuing efforts shall be made to recruit minority counselors and tutors to provide additional supportive services for minority students.

Action Program: Communication with Secondary Schools

By May 1, 1974, each college President, after a campus study, involving faculty, students, and administrators, shall submit to the Long-Range Planning Committee a proposal for more effectively communicating to Massachusetts high school students the educational opportunities that exist within the State College System through such avenues as expanded use of local and regional newspapers, and increased opportunities for personal meetings with high school students and counselors during the students' junior and senior years. Such proposals should recommend new means, to become effective September 1, 1974, for strengthening relationships with high school counselors and teachers, with parents, and with the students themselves.

Rationale for Action: Communication with Secondary Schools

Communication must be carried on not only with other segments within the higher education community in Massachusetts, but also with the secondary schools in the Commonwealth to provide the colleges with an up-to-date working knowledge of the educational expectations of high school students, and current levels of their academic achievement. In turn, the students will be made aware of the variety of programs available at the various State Colleges.

Combined student-faculty teams can be particularly effective in a program of secondary school visits. In addition, work needs to be done to compare the curriculum offerings of Massachusetts' secondary schools with the freshman offerings in the State Colleges to assure that the required course work at the college level does not duplicate what has become a standard part of the secondary school curriculum.

*Improving the Quality
of Learning*

In order to fulfill its commitment to the people of Massachusetts, and to implement its own goals #2, and #3 and #5 set forth on page 6, the Board of Trustees shall implement the following programs designed to improve the quality of learning within the State College System.

Undergraduate Education

Action Program: Report on Liberal Arts and Sciences Offerings

By January 15, 1974, each college President, after a campus study conducted in accordance with local campus governance procedures, shall submit to the Long-Range Planning Committee and to the Board's Educational Affairs Committee, a report listing all undergraduate courses for credit in the liberal arts and sciences. It is the intent of this requirement to move each campus to a position where it can assure basic instructional capability, not necessarily as majors, in the following areas:

1. *Creative Arts*, such as art, drama, music and dance;
2. *Humanities*, such as history¹, languages and literature (English and foreign) and philosophy;
3. *Natural Sciences*, such as biological and health sciences, chemistry, geology, mathematics, and physics;
4. *Social Sciences*, such as economics, geography, political science, psychology, and sociology.

All colleges should possess instructional capability and resources in each of these fields to give students broad options within both their required and elective course areas.

In addition, this report shall present all such courses in the liberal arts and sciences, and in all other areas, at the following four levels:

- I. A list of all courses which are available as electives toward any degree requirement, without necessary relationship to any major or minor.
- II. A list of all courses which are primarily courses of service to other departments.

¹May be included within either Humanities or Social Sciences.

- III. A list of all courses necessary for a minor in a given discipline.
- IV. A list of all courses necessary for a major in a given discipline.

Action Program: Academic Credit for Practicum Experience

Each college shall seek to offer as part of its curriculum, options which encourage students to undertake practicum experiences both on campus and in the community which are acceptable for academic credit. Students shall be involved, together with faculty and administration through the college's governance procedures, in the development of such practicum experiences. On June 1st of each year, each college President shall submit, as part of an annual report, a status report on Practicum Experience through the Provost for the review of the Long-Range Planning Committee and the Educational Affairs Committee. Such status report shall describe the practicum experiences offered, the process for taking advantage of those options, the number of students participating in such experiences and the number of credits given.

Action Program: Report on Counseling Services

On June 1st of each year, each college President, after a campus study involving faculty, students, and administrators, shall submit as part of an annual report through the Provost for the review of the Long-Range Planning Committee and the Educational Affairs Committee, a status report showing improvement of student counseling services, placement services, and other related support services for students.

Action Program: Approval of New Degree Programs and Majors

Effective immediately, requests from individual colleges to plan new degree programs or new majors in the liberal arts or professional fields shall be submitted in accordance with the guidelines for new degree programs and majors which are set forth in Appendix D, and which require the college to provide, among other information: (a) up-to-date evidence of student interest in the proposed degree program or major, (b) evidence of manpower needs for each proposed degree program or major, (c)

data as to whether other public or private colleges are already answering the same educational need by offering the same or a similar program or major, (d) description of the curriculum to determine if it meets acceptable standards for the discipline, (e) the teaching faculty required and library and other resources needed to support the program or major, and (f) analysis of the cost of the program or major. These new guidelines provide for the assistance of the Associate Director for Academic Affairs and his staff to the colleges and the possibility of abbreviating the guidelines where appropriate.

*Study Program: Task Force on Teacher Education
and Laboratory Schools*

Effective November 8, 1973, no plan for laboratory schools or similar facilities for students majoring in elementary or secondary education shall be approved by the Board, pending a study of the educational value of such facilities for the education of teachers. By January 15, 1974, the Provost, after consultation with the Council of Presidents, and the Faculty Advisory Commission, shall establish a System-wide Task Force on Teacher Education and Laboratory Schools, including among others, faculty, students, and administrators, to develop recommendations with respect to the future of both teacher education programs and laboratory schools in the State College System. Such recommendations shall be submitted by the Provost to the Long-Range Planning Committee and the Educational Affairs Committee through the Council of Presidents by September 1, 1974.

Action Program: Integrative Curricular Models

By May 1, 1974, each college President, after a campus study, involving faculty, students, and administrators, shall submit to the Long-Range Planning Committee and to the Educational Affairs Committee the results of an examination of those elements of the curriculum presently functioning and proposed for the future, which are designed to integrate the liberal arts and humanities with career preparation programs. These Trustee Committees are as interested in the efforts of individual campus curriculum committees now underway as they are in plans to deal with present and anticipated difficulties in integrating specialized career programs with the benefits of genuine liberal education.

Rationale for Action: Integrative Curricular Models

As the State Colleges continue to move from their original status as single purpose institutions to a role of preparing students for a variety of careers, it is important to adjust some liberal arts and humanities offerings to meet the special interests and needs of differing groups of students. Not only does each institution with its appropriate mechanisms for curricular development face this challenge, but the System as a whole faces the need for a method to guarantee that the developing career programs do not become isolated from the counter-balance of liberal education.

The need of the System is not for one liberal arts or humanities curriculum predesigned to fit all anticipated vocational needs. What is needed is a System-wide response to the several diverse ways of bringing liberal education into effective relationships with career preparation.

What has been done with considerable impact in designing a philosophy of education for prospective teachers, is now appropriate in the design of educational programs which meet the needs of prospective businessmen, engineers, health professionals and computer scientists. Such future professionals have no less a need for an opportunity to examine to the fullest the human significance, both personal and social, of their chosen careers.

The campus based examination here called for is not intended to produce a universally applicable curricular model to be imposed upon all institutions. The thrust is to hold each institution responsible for bringing together students, faculty, and administrators in a common effort to develop opportunities for students to explore the human and social implication of their careers and to examine such profound and relevant questions as the inevitability of change, the management of the future, the value and uses of leisure, the present stage in cultural evolution and the demands of ecological balance. Such legitimate concerns might be addressed by any one discipline or be a cooperative effort involving a number of disciplines.

The adaptation of some liberal arts and humanities courses to meet this special emerging need should not be allowed to undermine those existing liberal arts and humanities programs which are of proven quality.



Action Program: Departmental Conferences

Beginning in the academic year 1973-1974, a series of System-wide conferences of the members of related disciplines will be convened in order to facilitate communication among them on matters of mutual interest and System-wide importance.

Rationale for Action: Departmental Conferences

As the individual State Colleges continue to plan and organize to achieve improved communication and cooperation, it is important to recognize the central role to be played by academic departments. Within the State College System the divisions or departments structured around a particular science or discipline form the fundamental collegiate unit. It is the Department which usually develops curriculum, recommends faculty, and provides the basic orientation for students to assure their personal and professional growth. Nevertheless, other potential organizational arrangements might profitably be considered as knowledge continues to expand across disciplinary lines. Because of the pressures for change being exerted upon so many disciplines today, the need for communication across departmental and institutional lines assumes a position of high priority within the State College System. For this reason, each of the institutions might well profit from a series of conferences for the faculties within and among the various intellectual disciplines so that they might share their perception of the present condition of their discipline. Such conferences should consider, for example, the state of student interest, career projections, new theoretical and pedagogical developments, the potential for interdisciplinary cooperation, and the institutional role and social value of such studies as social sciences, physical sciences, life sciences, the humanities, modern languages, technology, the arts and others.

It is the objective of this "Agenda for Renewal" to stimulate the strongest initiative on the part of faculties to estimate and cope with their respective long-range problems. Such conferences can be expected to result in realistic curriculum reform, and also provide an opportunity for faculties to develop and redirect their individual talents. Thus, during the 1973-1974 academic year, the Provost, following consultation with the Council of Presidents and the Faculty Advisory Commission, shall be authorized, on behalf of the Board, to provide the opportunity for such conferences.

Graduate Education

Action Program: Graduate Education Projects

By September 1, 1974, the President of each college shall submit a progress report to the Long-Range Planning Committee with respect to the following objectives:

1. The establishment of graduate faculties, using standards set by the Council of Graduate Schools in the United States.
2. The establishment of graduate councils.
3. The establishment of departmental graduate committees.
4. The appointment (where appropriate) of a full-time dean of the graduate school, as well as providing him or her with the necessary supporting staff.
5. The establishment of an academic advising system for graduate students.
6. The acceptance of as many graduate students as possible into some regular day classes.
7. The re-examination of standards used for such processes as admission and retention.
8. The consolidation, where feasible, of present degree programs (e.g., elementary school administration and secondary school administration might be incorporated into one program of school administration).

Rationale for Action: Graduate Education Projects

The existence of strong graduate programs is generally taken to be a reliable index of the maturity and quality of an educational institution. The dimension of graduate study gives a focal point for further study, community service, intellectual enrichment, some research capability, and pride in the college. Indeed, it is no accident that excellent undergraduate education is often found in those institutions with strong graduate components.

Graduate programs, when properly conceived and executed, stimulate the improvement of undergraduate education. Colleges

offering strong graduate programs are in a position to hire and retain highly qualified faculty. A college's reputation for excellence in the area of graduate work also attracts undergraduate students of high quality.

With the exception of the Maritime Academy, all of the State Colleges are actively engaged in offering a wide variety of graduate programs (most lead to a degree in professional education). In the main, graduate programs are not funded by the State; generally they are self-supporting programs whose only source of revenue is student fees.

Graduate education in the Massachusetts State College System has received careful consideration in a number of studies since 1970. As it is now organized and funded, it presents a variety of problems the foremost of which is the future of its accreditation status. Regional and national accrediting agencies have recently registered serious concern about the quality and organization of graduate education at several of the State Colleges.

Although most of the problems connected with graduate education are financially related, there are some which can be alleviated with little or no cost. These are outlined in the above stated action program (1-8). On April 4, 1973, the Board of Trustees approved the following joint recommendation of the Council of Presidents and the Task Force on Graduate Education:

"That the following steps be taken as appropriate at the individual campuses to immediately improve the quality of our graduate programs, and thus assure accrediting agencies that we are moving in the right direction."

(Note: the steps referred to are objectives 1-8 of Action Program titled, "Graduate Education Projects.")

Study Program: Graduate Education Task Force

By January 15, 1974, the Provost, after consultation with the Council of Presidents and the Faculty Advisory Commission, shall establish a System-wide Task Force on Graduate Education, which will include, among others, faculty, students and administrators to make recommendations with respect to:

1. The funding of graduate education;
2. The assignment of special graduate education missions to certain institutions (e.g., graduate center/consortia);
3. The development of new degree credit opportunities to meet the shifting interests and needs of graduate students and employers, and other such recommendations designed to improve the quality and delivery of graduate education.

These Task Force recommendations shall be submitted by the Provost to the Long-Range Planning Committee through the Council of Presidents by June 1, 1974.

Rationale for Action: Graduate Education Task Force

Under provisions of the Willis-Harrington Act, the Board of Trustees is required to provide programs in graduate education up to the level of the master's degree. At a time when the accreditation of such programs is being critically studied, a central issue affecting the future of graduate education within the State College System is the method of its funding. In order, therefore, to explore the feasibility of funding through state appropriations, among other options, the Board intends to establish by December 1, 1973, a special ad hoc committee of trustees, including the Provost, to meet immediately with members of the legislature, the Secretary of Educational Affairs, and other appropriate representatives of the higher education community.

If graduate education is funded, it will not be possible for each college to offer all of their current majors or programs. The Task Force on Graduate Education provided several models for graduate centers/consortia. On the other hand, it has been suggested that instead of graduate centers, each college should be allowed to offer graduate education in accordance with its strengths and the needs of its region – this would necessitate eliminating certain majors at each college. Thus a study is needed to determine whether graduate centers/consortia should be implemented or whether each college should be allowed to offer its own program.

Education and the Office of the Secretary of Educational Affairs. The study sample should include professional educators (teachers, administrators, etc.) as well as industry. The results will help each college (or graduate center if the consortia plan is implemented) determine: (a) which current areas/majors they should expand, cut back, or eliminate; and (b) what new areas or programs they should implement in order to meet the shifting interests and needs of both graduate students and potential employers.



Continuing Education and Community Service

If the State Colleges have discerned their mission in the area of traditional, campus-based, on-going, course-for-credit post secondary education, they have only recently begun to understand fully what the new wave of the future in higher education is, and will continue to be throughout the 1970's and 1980's. That new wave is best described by a phrase used by the Carnegie Commission: "less time, more options."¹

All of the institutions in the Massachusetts State College System must, as a matter of high priority, devote attention to the implementation of new efforts like those outlined in the Carnegie Commission's recommendations with respect to "less time, more options." (A summary of these recommendations appears in this report as Appendix I.)

Action Program: Continuing Education

1. Effective July 1, 1974, and building on the Harclerod-
Armstrong study of Continuing Education in the State
College System and the 1973 Study by George Nolfi
called "Strengthening The Alternative Post-Secondary
Education System," there shall be further developed an
integrated Continuing Education program for the Massa-
chusetts State College System with all program and budg-
etary coordination in the Office of the Provost.
2. Effective July 1, 1974, each institution under the juris-
diction of the Board of Trustees of State Colleges shall
establish from appropriated funds a position of Dean (or
Director) of Continuing Education, full-time or part-
time, as each institution's needs warrant, responsible to
each President respectively, or his designee, and sup-
ported by Commonwealth appropriated funds. Together
with a representative of the Provost, the campus Deans
(or Directors) of Continuing Education shall comprise
the Council of Presidents' Task Force on Continuing
Education.
3. Effective no later than May 1, 1974, the Board of
Trustees of State Colleges shall have reviewed once again

¹Carnegie Commission on Higher Education, *Less Time, More Options: Education Beyond the High School* (New Jersey: McGraw-Hill, 1971), pp. 13-24.

the pattern of financing graduate and continuing education and shall have adopted policy recommendations, to be proposed by the Provost with the advice of the Council of Presidents, to fund graduate and continuing education for the Massachusetts State College System for the period 1975-1980. The development of such proposals will continue to be, as now, under the joint jurisdiction of the Board of Trustees Committees on Finance and Educational Affairs, and subject to review by these committees and the Long-Range Planning Committee.

4. Already committed to the idea of an "open university" for the Commonwealth, the Board of Trustees must have in hand by no later than May 1, 1974, an evaluation of the "pilot programs" authorized by the Board in June, 1972. Accordingly, the Provost is instructed to have a complete evaluation of these "pilot programs" conducted by a qualified outside agency and a report in the hands of the Trustees for consideration by the Board's May, 1974, meeting. Such evaluation should indicate how the Massachusetts State College System "pilot programs" can best be integrated with the projected Open University of the Commonwealth.

Action Program: Community Service

All public post-secondary institutions have a responsibility in the field of community service which is a counterpart to resident instruction. To improve the capacity of the State College System to expand its range of community service programs, the Board of Trustees of State Colleges shall take the following actions:

1. Make certain that a top-ranking administrative officer at each State College has as his or her primary responsibility the development and promotion of community service programs, whether they are offered for credit or not.
2. Require a status report to the Provost each June 1st, from the President of each of the State Colleges, as part of the President's annual report, concerning development of programs in the community service area, with the understanding that faculty members may be given consideration for promotion in academic rank for effective participation in such programs, whether they are offered for credit or not. The Provost shall share this report on an informal

basis with the Long-Range Planning Committee, Council of Presidents, Faculty Advisory Commission, and the Student Advisory Commission.

3. Establish a Community Service Commission, under the aegis of the Massachusetts State College System. The Commission shall include participants from all of the colleges under the jurisdiction of the Board, as well as from the alumni and other interested members of the community. It shall meet semi-annually with the purpose of recommending to the Trustees and to the Commonwealth needed new programs in the field of community service, with additional recommendations as to the sources of funding of such programs. The Provost shall be responsible for proposing the organization and format of the Community Service Commission during the 1973-1974 academic year, after consultation with the Council of Presidents, the Faculty Advisory Commission, and the Association of Massachusetts State College Alumni.

*Strengthening the
Teaching Function*

In order to fulfill its commitment to the people of Massachusetts, and to implement its own goal #4 set forth on page 6, the Board of Trustees shall implement the following programs to assure the highest quality of teaching by attracting and retaining within the State College System a vigorous and imaginative teaching faculty.

Action Program: Professional Development of Faculty

A. Individual Faculty Initiated Projects

Effective May 1, 1974, full-time faculty members within the State College System may apply for reduction of their teaching duties in order to undertake an approved project of scholarly merit, of research, of independent study, or of service to the campus or the community, provided such undertakings are related to the teaching mission of the college, the learning needs of the students and the professional development of faculty. The procedures to be used in applying for this reduction in teaching load shall be developed by each campus and submitted by the President to the Long-Range Planning Committee and the Personnel

Committee for review and approval by March 1, 1974. See Appendix G for one set of suggested procedures.

B. *Faculty Internships*

Effective September 1, 1974, there shall be established in the Central Office the position of "Research Associate in Academic Planning" to which the Provost shall appoint a member of the State College faculty on either a one-semester or one-year internship basis. The Provost shall select this faculty member after consultation with the Council of Presidents and the Faculty Advisory Commission.

C. *Faculty Exchange Program*

By January 15, 1974, the Provost, after consultation with the Council of Presidents and the Faculty Advisory Commission, shall establish a System-wide Task Force on Faculty Exchange Program. This Task Force will include, among others, faculty, students, and administrators. The purpose of the exchange program shall be to provide new means for State College faculty members to teach courses in their specialties at other State Colleges where the need of students and the System can be better served as a result. The report and recommendations of this Task Force shall be submitted by the Provost to the Long-Range Planning Committee and the Personnel Committee through the Council of Presidents by September 1, 1974.

Rationale for Action: Professional Development of Faculty

Teaching is the primary mission of the State College System. Placing the instructional process at the center of the learning experience in no way, however, diminishes the importance of scholarship, research, and service to the community as integral components of this primary mission. The question is one of fundamental priorities: for the State Colleges, research and service must be supportive of the teaching function, and aim to enrich the learning experience of the student while simultaneously contributing to the professional development of the faculty.

So firm a commitment to teaching, however, requires an equally determined policy of continuing to seek for the State College System a strong professional faculty dedicated to excellence in

teaching and service to the student. Moreover, the Board of Trustees recognizes that, as a corollary, the State Colleges will be better able to retain vigorous and imaginative teaching faculty if opportunities are provided for intellectual growth and self-renewal through various options for professional development. In this climate of high expectations, the student becomes the primary beneficiary.

It is imperative, therefore, to continue to foster and strengthen the quality of professional life within the State College System, and thereby to enhance the contributions of its faculty. It is this commitment that forms the basis for the following actions taken by the Board:

A. Individual Faculty Initiated Projects

At the present time the Board of Trustees' policy on sabbatical leave constitutes the principal means available to faculty for enriching their professional life through independent study and research. As a complement to this policy, the Board now affirms its intent to make available on each campus a process for reducing teaching assignments so that an additional number of faculty members each year might undertake an approved educational project.

B. Faculty Internships

The Board of Trustees recognizes the rich educational and academic background of the State College faculty. In order to open additional avenues for faculty contribution to the State College System and to expand opportunities for faculty involvement in academic planning and program development at the System level, a new position shall be established in the Central Office of "Research Associate in Academic Planning." The Provost shall select the candidate for this internship from among State College faculty after consultation with the Council of Presidents and the Faculty Advisory Commission.

C. Faculty Exchange Program

The variety of instructional skills possessed by the teaching faculty of the State College System represents a valuable State-wide resource. Geography, however, often makes access to these skills impossible for students who are unable

to travel long distances. To reduce the impact of such barriers, a System-wide Task Force on Faculty Exchange Program shall be formed to design a faculty exchange program to make available to other institutions within the System the special instructional capabilities of faculty members. Such a program shall preserve the status and rights of faculty members on their own campuses.

Action Program: Faculty Evaluation

By March 1, 1974, each college President, after campus study involving faculty, students, and administrators, shall submit to the Long-Range Planning Committee and to the Board's Personnel Committee a description of the campus faculty evaluation process. This process shall seek to assure: (a) significant peer judgment; (b) opportunity for student evaluation of teaching performance both through departmental committees and through student government evaluations conducted independently from other formal evaluation procedures; (c) evidence of teaching effectiveness through such means as classroom observation, by Chairmen and other colleagues, public lectures, etc.; (d) the right of the candidate's access to both evaluating committees and evaluation materials; (e) adoption of clear evaluation criteria focused on the effectiveness of teaching and based on the Board's personnel policy; (f) a provision precluding the submission of anonymous evaluation by peers; and (g) delineation of the committee structures for faculty and student participation in evaluation, and of the final decision-making role of the President and the Board in all personnel matters.

Rationale for Action: Faculty Evaluation

In American higher education the concept of meritorious performance is a key component of any system which attempts to assess the professional contribution of faculty. But since it is difficult to measure objectively the end products of teaching and scholarship, most systems of faculty evaluation have relied heavily on peer judgment in both applying and regulating the standards of performance. Within the State College System, too, the principles of meritorious performance and evaluation by peer judgment have become fundamental starting points. Indeed, with

the advent of collective bargaining on many of the State College campuses in 1970, these evaluation processes have become key components of contract provisions related to the professional conditions of faculty employment. It is in the interest of both the faculty and the institutions to continue to develop on each campus basic structures and uniform principles of evaluation, and to this end a basic format for evaluation is being required by this "Agenda for Renewal" for each State College.

Study Program: Task Force on Tenure

By January 15, 1974, the Provost, after consultation with the Council of Presidents and the Faculty Advisory Commission, shall establish a System-wide Task Force on Tenure, which will include, among others, faculty, students, and administrators to study the future of tenure within the System and the Board's tenure policies, and to develop recommendations concerning this major issue. The Provost shall submit the recommendations of the Task Force through the Long-Range Planning Committee to the Board's Personnel Committee by September 1, 1974.

Rationale for Action: Task Force on Tenure

The roots of tenure in this country stem historically from the widely recognized need to protect and preserve academic freedom. At many institutions, tenure is still considered a necessary inducement to attract superior faculty, while at others it is perceived more as a safeguard of job security than as a device for protecting the rights of all faculty to teach in a climate of freedom.

At present when the job market for faculty in many disciplines is shrinking, and faculty are less mobile than before, colleges and universities are legitimately concerned about the problems of becoming too "tenured-in." The Massachusetts State College System is no exception.

At the end of the 1972-73 academic year, 52 percent of the 1,868 faculty in the State College System were tenured. Among the eleven institutions, Boston State College, the largest, is the most seriously affected with 64 percent of its total faculty of 321 on tenure as of the spring semester, 1973. The least tenured faculty

is at the Massachusetts Maritime Academy, the smallest institution, with 27 percent of the total of 33 faculty members now on tenure. Most of the other eleven institutions, including Bridgewater, Framingham, Salem, Westfield, and Worcester have over 50 percent of their faculty currently on tenure.

Over the past five years there has been a steady increase at all eleven colleges in the number of tenured faculty, and the trend line for the future indicates that, without the imposition of some reasonable restraint, many of the State Colleges will be virtually 100 percent tenured by the close of the decade.

What is at stake for the future of the State College System, therefore, is the ability to retain institutional responsiveness and flexibility. Thus, consideration must be given by the Task Force both to the clear need of the System to retain the ability to grow and innovate, and the legitimate interests of the faculty and the Board of Trustees in protecting academic freedom.

Increasing Options Through Learning Alternatives

In order to fulfill its commitment to the people of Massachusetts, and to implement its own goal #9 set forth on page 7, the Board of Trustees shall implement the following action programs to encourage innovation and to expand learning options for students.

Action Program: Commonwealth Learning Centers

By May 1, 1974, the Provost, after consultation with the Council of Presidents and the Faculty and Student Advisory Commissions shall submit to the Long-Range Planning Committee recommendations to establish one or more Commonwealth Learning Centers. These recommendations shall include a proposal for the central location for such a collaborative effort and for its organization including staff and funding needs.

Rationale for Action: Commonwealth Learning Centers

The individual State Colleges face many difficulties in adapting to rapid and profoundly significant changes in programs,

methods, the demands of vocation, the structures of governance, social priorities and in their relationship to the other segments of higher education, public and private. In order to facilitate a sharing of these concerns and to provide organizational structure and support for a collaborative effort in examining and experimenting with possible solutions to these and other pressing problems, the Provost is charged with initiating some specific center or centers.

The establishment of these centers will take into account hazards experienced at some institutions where such organizational structures have tended to undermine departmental strengths, to divert funds from campus needs and to dissipate academic talent. The collaborative efforts here called for can benefit from nationwide experience and thus make a significant contribution, not only to each college as an autonomous learning center but also to the State College System. This can be accomplished by pooling resources and coordinating research and experimentation where common concern warrants it and by generating special funding from public and other sources.

The types of centers or collaborative endeavors, their eventual structure, location, mission and scope will evolve in time and will vary with need. It is here suggested that they take the form and character of the following models which deserve a certain initial consideration.

1. The Commonwealth Center for Public Policy and Public Service

An informed and involved citizenry requires an appreciation of American political and constitutional processes. This Center would therefore seek to promote the widest possible range of interfaces between the daily lives of the citizens of Massachusetts and the ongoing social processes by which their lives are affected and enriched.

This can be accomplished in several ways. The Center could serve as a focus for the new public service career programs which the State College System is simultaneously creating. Thus it could serve to stimulate an informed interest in public service career opportunities throughout the Commonwealth. In addition, the resources of this Center could be made available to the public directly through the creation of learning packages and other learning instruments. More-

over, it should attract the involvement of members of the executive, judicial and legislative branches of government in the work of the Center. Thus, the State College System through this Center ought to fulfill its role not only to educate those students who are in fact enrolled in courses of study within the System, but also to offer its educational resources to the citizens of Massachusetts in a more general and comprehensive way. This Center would be expected to become a major step toward building a bridge between the institutionalized resources of public higher education and the public at large.

2. The Commonwealth Center for Learning Alternatives

This Center might be of primary importance as the State College System moves ahead with its plans to continually update its overall policies and programs. Faculty and students working in this Center can research and experiment with the very latest possibilities in learning theory and pedagogical method, and can then make their findings available to all of the institutional components of the State College System. In this way, the change process can be buttressed by carefully documented findings, so that learning alternatives are offered throughout the System which reflect the best and most advanced thinking which is available.

This process can work at two levels. At one level, this Center can provide an ongoing flow of information and documentation regarding the utility of various learning alternatives which are relevant to educational institutions at the primary and secondary levels. This data can be shared both with the Education Departments of the various State Colleges, with the school systems throughout Massachusetts, and with the Commissioner of Education. At another level, this Center can provide documentation regarding the utility of learning alternatives which might lend themselves to adoption throughout the State Colleges.

3. The Commonwealth Center for Educational Change

This Center is intended to provide faculty and students with a starting point for exploring new educational directions, and for promoting educational change related to the interests and needs of State College students.

Within this context, attention could be focused on such significant approaches to learning as the study of the historical development of ideas, or the critical problems of mankind. Either approach, or others like them, could provide opportunities for students to evaluate and understand the meaning of change in modern society by appreciation of the socio-economic, cultural, and political forces that influence it. Hence, this Center should serve as a resource point for the creation of, and experimentation with, curricular materials to support allied study areas throughout the State College System in such cognate fields as philosophy, sociology, and political science.

At the same time this Center should encourage faculty and students to study a wide range of areas in which innovation is desirable including, among others, a study of new formats for the academic calendar; new techniques for evaluating student performance and achievement; the possibility of shortening (or lengthening) the traditional 4 year commitment to earning the bachelor's degree, including liberalized arrangements for delayed admissions and for "stop out"; more flexible arrangements for student involvement in determining their own program of study; the development of new applications of media and technology to learning; and such alternative degrees as the Bachelor of Liberal Studies or General Studies.

It is intended that opportunities be provided within this Center for an examination of future social and economic trends and their impact on the State Colleges and the needs of students. It is now apparent that society is in the midst of fundamental changes. In the near future, basic social, environmental, and political decisions will have to be made which will affect the future of our national and regional life. Already, the impact of environmental and other concerns upon the existing social and political orders is apparent; and, as the nation and the Commonwealth move into the last quarter of the 20th Century, increasing awareness must be achieved at all levels of society of the meaning and desirability of the various social options which are available and of their applicability to the educational process of the Massachusetts State College System. It intended that such "future studies" find a focus under the comprehensive aegis of the Center for Educational Change.

Action Program: Alternative General Education Programs

By December 1, 1973, each college President shall designate, in accordance with campus governance procedures, a committee of faculty, students, and administrators charged with the responsibility to examine the relationship between General Education requirements and the needs of students in the following areas of concentration:

1. liberal arts and sciences
2. teacher education
3. other professional career preparations

The resultant recommendations shall be submitted by the college President to the Provost by November 1, 1974, for review by the Long-Range Planning Committee and the Educational Affairs Committee.

Rationale for Action: Alternative General Education Programs

The campus committees called for are asked to recommend the appropriate institutional method for providing general education programs which effectively meet the needs of students with those specific career interests which are new to the college or pose particular problems. The intent of this examination is not to compromise the genuine character of general education which enables a student to see beyond the narrow confines of a particular vocation and which provides him or her with the basic tools of clear thought and communication, but rather to seek ways in which to guarantee that such programs do indeed accomplish their objectives.

Naturally each institution ought to undertake a constant review of its general education and all other requirements. Yet the challenges created by the present state of flux in higher education require each College, individually and as a component of a State System, to respond to a State-wide variety of expectations and problems. It is to be expected that each College will identify its own unique difficulties and solutions in adapting general education requirements to new challenges so that the State System itself might offer to prospective students a variety of realistic and helpful alternatives. It is also expected that each College would examine alternative methods of stimulating students to participate more directly in the design of their own general education programs.

*The Planning and
Approval of New Degree
Programs and Majors*

Under existing Trustee policy, State Colleges are required to obtain authorization from the Board in order to plan or implement a new degree program or new major at the undergraduate or graduate level. The guidelines set forth in Appendix D shall be used for requesting such authorization. They are based upon a limited modification of the existing format used by the Board's Committee on Educational Affairs and are divided into two categories: guidelines for requesting planning approval, and guidelines for requesting program approval. Authorization at the first stage shall be granted by the Provost and shall permit the College to design the program for submission to the Committee on Educational Affairs. Authorization at the second stage shall permit the College to implement the program upon the recommendation of the Committee on Educational Affairs, and the approval of the Board of Trustees of State Colleges, and the Board of Higher Education.

*Inter-Institutional
and Inter-Segmental
Cooperation*

Progress has been made in recent years toward inter-institutional cooperation within the Massachusetts State College System, and also toward inter-segmental cooperation among the Massachusetts State College, Community College, and University Systems.

However, within the framework of the programmatic and budgetary constraints facing the Commonwealth, the tempo of cooperation must be accelerated. Toward that end, the Trustees shall:

1. Seek continuing meetings with representatives of the Boards of Trustees of the other public systems and/or institutions in the Commonwealth, and join in sponsoring an annual meeting of all trustees of public post-secondary institutions.
2. Seek annual public reports from the Executive Officer of the Board (the Provost of the Massachusetts State College System) with respect to cooperative efforts being made among the several public systems of higher education, together with recommendations for actions by the Board of Trustees of State Colleges in specific program areas that lend themselves to cooperative programming (e.g., nursing and the allied health professions).
3. Expect all institutions within the Massachusetts State College System to share all information relevant to program development and to report semi-annually on cooperative



efforts underway both within the System and among public segments, as well as between public and non-public sectors.

4. Do whatever is necessary to encourage faculty and student exchanges among the institutions within the Massachusetts State College System, as well as among the State Colleges and other public and private institutions within and outside the Commonwealth. Toward this end, the Trustees shall reaffirm their commitment to the work of the New England Board of Higher Education, particularly with respect to inter-institutional cooperation, and instruct the Provost to do whatever is needed to strengthen New England Board of Higher Education's role as coordinator of higher education in the New England region.
5. File legislation that seeks to amend the Willis-Harrington Act to remove the "voting representatives" from the Board of Higher Education, in order that the segmental voices on the Board of Higher Education be advisory, non-voting only. The Board of Higher Education would then function as a truly independent, coordinating voice for public higher education in the Commonwealth, without the anomaly of segmental voting representation.
6. Recommend to the Secretary of Educational Affairs that the Governor call an annual meeting of all Trustees of public institutions to discuss problems of policy in higher education, with the report of such a meeting to be disseminated publicly throughout the Commonwealth.
7. Work cooperatively with other public boards to meet with representatives of the Association of Independent Colleges and Universities of Massachusetts to discuss periodically the problems of mutual concern to the public and private sectors of higher education.

The Budget and the Buildings

The Budget:

During the past ten years, the operating budget of the State College System has increased from 11.6 million dollars in fiscal 1964-65, to 56 million dollars in fiscal 1973-74. In that same period over 167 million dollars has been provided to the System for capital improvements. Campus acreage has more than doubled from slightly over 300 acres to more than 775 acres.

Some 33.1 million dollars have been spent on the construction of 15 dormitories by the Massachusetts State College Building Authority providing living accommodations for over five thousand students. Faculty salaries have increased from an average 8900 dollars per year to over 15,000 dollars per year. Total personnel has nearly tripled from 1392 to over 3800.

During the same period of time the State College System has been able to admit 19,000 additional full-time students, an increase of over 150 percent. Scholarship assistance to needy students has expanded from a mere 14,000 dollars to over three million dollars. The program of Continuing Education has experienced a student enrollment growth from 23,681 to over 50,000 while operating budgets have risen from one million to 4.5 million dollars.

In 1965 the Commission which recommended the Willis-Harrington legislation projected full-time enrollments for the Massachusetts State College System for the Fall of 1973 to be 21,975 students. Full-time enrollments as of Fall, 1973, were nearly 45 percent greater than that projected figure.

Another study by the Board of Higher Education in 1967 projected there would be a total of 75,000 full and part-time students in the System by 1980. Today, there are already over 80,000 full and part-time students enrolled in the State Colleges.

Nevertheless, this level of enrollment and financial growth cannot be taken for granted in the future without greater public understanding of the objectives of the State College System. An important key to this improved understanding lies in the current effort being made to develop a programmatic budgeting system for the State College System. It is expected that this modern budgeting system will be fully operational in five years; its essential components, however, are even now being used to develop the budget requests for fiscal year 1974-75. This system will permit the Board to manage its available resources more effectively, and will insure greater accountability to the Governor, the Legislature, and the people of Massachusetts.

While working toward the goal of better management, the State College System will continue to review all budget requests in accordance with a procedure that involves Trustees, Central Office staff, and the individual colleges. This procedure requires

all colleges to prepare annual budget requests on the basis of institutional priorities which in turn become the focus of careful examination by the Trustees prior to any budget submission whether to the Board of Higher Education, the Secretary of Educational Affairs or the Governor.

Although the State College System has experienced financial growth in many areas in recent years, support from federal and private sources has noticeably lagged. Moreover, graduate education, mandated by Chapter 73 of the General Laws of the Commonwealth, has never been funded by state appropriations. Instead, master's degree programs offered by the State Colleges are supported by student tuition.

It is clear that the cost of instruction and the level of enrollments within the State College System will not lessen in the years ahead. If enrollments grow at a rate no larger than five percent a year, as compared to the fifteen percent annual increase during the past ten years, full-time enrollments, not including Continuing Education, will increase to 42,000 students by 1980. Similarly, if per student appropriations increase by five percent annually, annual operating budgets for the State College System will exceed 100,000,000 dollars by 1980. A less conservative forecast was made by the Physical Facilities Master Plan for the Massachusetts State College System in 1968 when it projected 47,000 students by 1980. Assuming a 5 percent annual increase in per student appropriations, the operating budget would approximate 160,000,000 dollars by that same year – an increase over current operating budgets of 190 percent. In comparison, the operating budget for fiscal year 1972-1973 is 125 percent greater than the budget six years ago.

The Buildings:

The rapid increase in the number of State College facilities, like the growth of the budget, is another reflection of the overall trend toward expansion which characterized the late 1960's. Construction during the last decade has placed new libraries on ten of the eleven campuses; in the same period nine science buildings, six academic buildings, and eighteen general purpose buildings have been constructed. It is anticipated that for this decade, however, new facilities will not be built at the same rapid pace as in the

past due to current fiscal restraints and the forecast of a possible leveling off of enrollment. The Physical Facilities Master Plan developed in 1968 indicated an enrollment of 47,000 full-time students for the State College System by 1980. Facilities existing and presently under construction will provide space for 35,000 students during the next three years – approximately 5,000 more than the current 30,000 full-time students enrolled throughout the State College System.

Using the national standards of 135 square feet per student, the additional space anticipated to meet the 1980 enrollment level of 47,000 students is an area of 1,620,000 square feet throughout the State College System. It should be noted at this time that although the original 1968 Facilities Plan indicated that two new State Colleges should also be on line by 1972, no current program is underway to acquire new sites for this purpose.

Consistent with the Trustees' commitment to expand educational opportunities for an increasing number of the State's citizens, the Long-Range Planning Committee concurs with the Board's Committee on Buildings and Grounds in its intention to perform an immediate study of the capital outlay needs of the State College System projected to 1980. It is also imperative that future capital outlay projects that are finally approved by the Buildings and Grounds Committee carry with them the most detailed program information and even greater justification than has been the practice in the past if they are to compete successfully for support in the State's increasingly austere fiscal climate. With the expressed goal, therefore, of evaluating alternatives for enhancing the use of present facilities, the Committee on Buildings and Grounds has given high priority to preparing an inventory of all buildings, existing and under construction. At the same time, the Committee will thoroughly study space utilization, and recommend ways to improve the use of space to the Committee on Educational Affairs.

Another trend must be noted. The amount of land adjacent to the colleges that might be reasonably acquired and developed for new facilities within economic bounds has become progressively scarce. Two colleges have successfully solved the problem by acquiring land some distance from the college and developing a satellite campus. It is important now that uniform guidelines be prepared to facilitate the ability of the State College System to acquire such properties when similar opportunities arise.

In addition, there are several dormitories on the various campuses which were originally constructed by the State of Massachusetts and whose operation is financed under the regular college budget. Studies have been prepared indicating that it would be beneficial to resident students to transfer these dormitories to the State College Building Authority. The Long-Range Planning Committee recommends that the Board of Trustees continue to seek ways to attain such transfer.

Moreover, the rapid growth of student enrollments and the construction of physical facilities to accommodate that growth have greatly outpaced the expansion of parking facilities. The shortage of parking has precipitated very severe hardships on the communities adjacent to the college campuses as students park on the streets in the area. Most streets are not designed for this type of use and therefore, particularly during snow conditions, traffic and emergency vehicles find it most difficult to maneuver. The Committee on Long-Range Planning recommends that the Committee on Buildings and Grounds study the unique parking problems at each campus and develop both immediate and long term solutions to the problems, and that the Board express through its budget request the serious nature of the "automotive strangulation" now being experienced.





*Summary of Action
Programs and Task
Forces by Category*

Expanding Access

1. Transfer Access
2. Outreach
3. Communication with Secondary Schools

Quality of Learning

Undergraduate:

1. Report on Liberal Arts and Sciences Offerings
2. Academic Credit for Practicum Experience
3. Report on Counseling Services
4. Approval of New Degree Programs and Majors
5. Task Force on Teacher Education and Laboratory Schools
6. Integrative Curricular Models
7. Departmental Conferences

Graduate:

8. Graduate Education Projects
9. Graduate Education Task Force

Continuing Education and Community Service:

10. System-wide Continuing Education Program
11. Establish Campus Dean/ Director of Continuing Education
12. Review of Continuing Education and Graduate Education Financing
13. Evaluation of All Pilot Open University Programs
14. Community Service Administrator
15. Report on Development of Community Service Programs
16. Community Service Commission

Strengthening Teaching

1. Professional Development of Faculty:
 - a) Individual Faculty Initiated Projects
 - b) Faculty Internships
 - c) Faculty Exchange Program
2. Faculty Evaluation
3. Task Force on Tenure

Learning Alternatives

1. Commonwealth Learning Centers
2. Alternative General Education Programs

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*These Reports will be forwarded by the President as part of his annual report through the Provost to the Long-Range Planning Committee.

Appendix A

Academic Master Plan Workshop
Massachusetts State College System
Sheraton-Tara Hotel
Framingham, Massachusetts
April 27, 1973

Sylvia K. Burack, Vice Chairman
Board of Trustees of State Colleges
and Chairman, Committee on
Educational Affairs

Introductory Remarks to Participants

First, I should like to bring you the warm welcome of the Board of Trustees as you begin what I am confident will be an exciting, illuminating, and productive working experience for all of us, and most of all for the Massachusetts State College System. We have convened these Workshops at a kind of midpoint on the continuum of academic master planning which began some two years ago, when the Board of Trustees directed the Central Office staff to start to develop an academic master plan for the State College System. And the underlying spirit and motivation for that directive to the staff was – and is – in the words of Pope John XXIII, to “open the windows and let the fresh air in.” For, to quote Pope John further, “we believe that there is an intrinsic connection between the common good on the one hand and the structure and function of public authority on the other.”

And so far as the State College System is concerned, this “common good” is related to making our colleges the best they can be to meet the needs of the students and of the Commonwealth. The fact that we are here for this purpose in a setting of self-criticism and self-evaluation is in itself a mark of the maturity the Massachusetts State College System has attained since it was created by statute in 1966 under the Willis-Harrington Act. For we are far beyond the groping of those early years when our goals, our mission, our direction were less sure, as we tentatively began the difficult task of reshaping the narrowly conceived teachers colleges into an integrated System of differentiated colleges, each with a strong, vital liberal arts curriculum and diverse career opportunities for our students. For it will be from these fields that the lifelong and often life-sustaining residual benefits of higher education come.

The growth and progress we have made to date has been possible because of our realization and recognition of certain assumptions, which all of us here must keep in mind as we pursue the hard work ahead in developing an Academic Master Plan. One of these, and basic to the effort underway, is the fact, the reality, that all of us are part of the Massachusetts State College System, which is made up of 13 interdependent components: the 11 colleges, the Central Office staff, and the Board of Trustees, which by statute and history has a leadership and coordinating role in formulating policies

which promote the growth and development of the System – for the benefit of the students and the citizens of the Commonwealth which supports us. But a system like ours must be – and I believe it is – more than a sum of its parts; and that extra dimension, that *plus*, is the common purpose and the common good we are dedicated to see realized, to a large part through a creative, imaginative Academic Master Plan.

To this end, another assumption or reality that must be kept in mind as we proceed with our discussions is the fact that our students – many of them the first in their families to go to college and that with great sacrifice on the part of their parents – are not for the most part attending our colleges for pre-graduate school training. This may be the total extent of their formal education, and it must count! Their primary goal upon getting their degrees from our colleges is to have the necessary tools to compete successfully *now and in the future* in the job market.

And what are these tools? Because I believe so firmly – and I know I reflect the view of the Trustees – in the integrity of each individual student, the tools must be diverse and varied to match the abilities, talents, and interests of the students. But there are certain basic tools that are essential for everyone, and these may loosely be called the Liberal Arts components of what should be included in every college student's academic plan.

Rather than talk about Liberal Arts in terms of specific courses or even subject areas, I would prefer to talk of them in terms of the essential competencies they represent. And for all students graduating from our colleges and from any institution of higher education, I believe the first priority must be competence in written and oral English, for communication and perception.

A second competency of inestimable value is the ability to understand the subtleties of human motivation and human behavior in this tense and often bewildering society. And still another absolute, in my view, is the ability to reason, to think analytically and critically, to evaluate issues and ideas; to discriminate between fiction and fantasy, between the subtle gradations in truth and fact; to make logical judgments and aesthetic distinctions – in short, to develop taste. (Some of you may recall the short film called *The Violinist*, in which the character says, “I may not know from good but I know from awful.”)

These competencies and qualities are not easily attained, but they are basic and fundamental to a fulfilled and fulfilling life, for they enable us to try to enrich the society and culture, and, most important of all, to deal confidently and capably with the unanticipated, the unexpected, and the unpredictable. What we must always realize, of course, is that not all students attain these competencies through the same courses, programs of study or channels. For example, one student may develop his power of thinking through the study of pure mathematics or theoretical physics, another through the rigorous study of a foreign language or pursuit of linguistics, philosophy, logic, or musical composition, still others through the study of the social sciences, or the appreciation and

analysis of great literature. And usually, it will be through a combination of several liberal arts programs often grouped under the heading of the Humanities – and from the informal association with other students or faculty, or off-campus work in a social or political agency.

But before we get carried away, I must again bring you back to certain realistic assumptions on which any planning for public higher education must rest. I have already mentioned the need for expanded career opportunities and offerings, responsive to student needs, interests, and the demands of contemporary technology – and these are in no way antithetical to the liberal arts. What we are striving for – and I firmly believe will develop – is the balance and fusion of these two aspects of educational offerings; the liberal arts and the career-oriented programs. Yes, we want the best of all possible worlds, and we mean to come as close to achieving it as we can, within the realities we all face, and never at the expense of quality. For, to paraphrase a cliché, *we cannot have or offer all things to all students at all colleges*. This is another reality – a fiscal reality which we would be naive if we ignored and less than honest if we did not point out.

Budgetary limitations and a frank evaluation of the talents and abilities of our faculties impose definite limitations and constraints on academic planning – not only in the Massachusetts State College System, I hasten to say, but in every institution of higher education in the country, public and private. That we work within the framework of reality should not discourage anyone, however, for we can point to many impressive achievements in the academic growth of the Massachusetts State College System. We have already added appreciably to the liberal arts base of curriculum offerings during the past few years and have expanded the career-oriented majors and courses far beyond the single career of the past, namely, teaching.

During the past two years we have adopted certain new policies in the areas of admissions and transfer opportunities for our students to broaden greatly the accessibility of students to our System – and we have to do more and do it better. As we consider adding more programs and majors, we must at the same time be rigorous in evaluating the contribution of the courses and programs we have continued for long periods of time, more through habit than purpose, and must work out plans for professional development of our faculty and other personnel who may wish to redirect their efforts into new fields. In other words, we must have as an overall goal for the academic master plan adaptability, flexibility, and responsiveness in the programs and the personnel who teach and whom we are here to serve, namely, the students. For our graduates must be as ready for change as our colleges can make them – and always, the test must be excellence in our course offerings.

Since last fall, when the campuses, the faculties and the students were given the draft of the Academic Master Plan, there have been long, searching think-sessions and talk sessions throughout the System, reacting and responding to the implicit and explicit ideas in the proposed plan. The Central Office, the Lay Advisory

Committees which met several times each, and the Board of Trustees have been similarly engaged in a close examination and analysis of our academic needs and how best to achieve them. Certain central issues seem to have emerged in the responses which we have received from the various groups – some on which there is wide divergence of opinion; and others which show a surprising degree of consensus.

Beginning here today and from this point on, we are ready to take the next steps – to help the Trustees synthesize, and finally develop an Academic Master Plan on which the Board can make future policies, can amend, revise, or reaffirm current policies. We want and need all the help all of the interdependent components of our System can give us to achieve the best academic plan in public higher education: Quality . . . Flexibility . . . Diversity. . .

It will be against this plan when completed in the summer that we shall be able immediately to measure and weigh the new proposed academic programs and majors to make this a system which we can live with, work with, and be proud of.

I have only touched on some of the six issues – many inseparable, and all interrelated – which you will all be discussing in your various workshops, grouped around themes which have emerged in the voluminous responses we have received on the draft of the Academic Master Plan.

It is against this backdrop that I urge you to give us your best thinking, your best judgment, and your most positive advice to help us justify for the students and citizens of the Commonwealth today and in the future the act of faith which has brought us all together. The "spirit of self-renewal," to use John Gardner's splendid phrase, is abroad in these groves of academe. We don't yet know the ultimate results of these deliberations, but it is the unforeseeable, the now unpredictable, that may be the most exciting. You will recall the story of the three Princes of Serendip in ancient Persia, who went on a quest for treasure. By a series of happy accidents, they found treasures that they had not sought or dreamed of. It is this kind of serendipity that we hope for and that I am confident will come from our cooperative efforts toward an Academic Master Plan for the Massachusetts State College System.

Appendix B

Task Force on Graduate Education

(Approved As Revised at Council of Presidents' Meeting – 3/23/73)

Recommendations on Graduate Education in the Massachusetts State Colleges

1. That full funding of graduate programs be made through

the regular college budgets. If this cannot be accomplished, trust funds should be established as the principal source of funding.

If neither of these proposals is implemented, the following plan should be put into effect:

- a. A moratorium should be placed on all new graduate enrollments.
- b. This moratorium should remain in effect until the number of graduate students reaches the level which permits their incorporation into the regular college budgets.
- c. This incorporation might be expedited by:
 - (1) Using for graduate advising and instruction, faculty time made available through such course exempting examinations as CLEP.
 - (2) Converting certain undergraduate courses into upper divisional and graduate level courses.
2. That the concept of cooperative graduate consortia be approved, and, as funds become available, implementation of the concept proceed on a pilot basis.
3. That the following steps be taken as appropriate at the individual campuses to immediately improve the quality of our graduate programs, and thus assure accrediting agencies that we are moving in the right direction:
 - a. Establish graduate faculties, using standards set by the Council of Graduate Schools in the United States.
 - b. Establish graduate councils.
 - c. Establish departmental graduate committees.
 - d. Appoint a full-time dean of the graduate school at each college and give him necessary supporting staff.
 - e. Assign students to academic advisors from departments in which students are doing the major portion of their work.
 - f. Accept as many graduate students as possible into some regular day classes and include these students as part of each college's enrollment figures for budgetary purposes.
 - g. Re-examine critically, standards used for such processes as admission and retention.
 - h. Review with a view toward consolidation, present degree programs, e.g., elementary school administration and secondary school administration might be incorporated into one program of school administration.
4. That additional study of certain aspects of graduate education be made as recommended by the Task Force on Graduate Education prior to the implementation of the Academic Master Plan.
5. That a task force on graduate education be continued as an advisory body to the Council of Presidents.

Appendix C

Policy for Facilitating Student Mobility in Massachusetts Higher Education And Commonwealth Transfer Compact

Introduction

During the next decade higher education in Massachusetts will be measured, not by growth as in the past, but rather by its ability to deliver improved academic services to the citizens of the Commonwealth.

Accordingly, in 1971, the Massachusetts Transfer Review Council was established to foster improved student mobility among institutions of higher education. The Council is responsible for initiating policies toward that end. In an effort to fulfill its role within the mandate, the Massachusetts Transfer Review Council has identified five major areas for investigation:

- a. opportunity for student mobility within the system of higher education;
- b. diversity and differentiation among institutions and programs;
- c. experimentation and flexibility in undergraduate and continuing education;
- d. special targeted programs for such groups as the poor and disadvantaged, older students, women, and students with special requirements or needs;
- e. opportunities for deferred or interrupted study.

The recommendation contained in this report is addressed specifically to the issue of student mobility as reflected in the transfer of two-year college students to the upper division of four-year institutions.

The Context - Massachusetts Public Higher Education

Since the passage of the Willis-Harrington Act in 1965, an interlocking system of public higher education has been evolving in Massachusetts. In the period since 1965, the shift away from a mere collection of isolated institutions to a network of institutional segments has been achieved without recourse to a strong centralized executive structure. The present structure is based more on consensus than control. This structure permits institutions to exercise a high level of local discretion in responding to client needs.

At the two-year college level, individual institutions have not been able to exercise fully this discretionary authority because of the perceived or actual restrictions imposed by the receiving institutions in the matter of transfer. The mission of the community college is to provide access to education for students who might otherwise be excluded for a variety of reasons, including past academic

performance, cultural factors, and economic limitations. To fulfill this mission the community college must be free to develop, utilize, and manipulate academic processes in order to serve this population adequately. In so doing, these institutions often find it necessary to depart from conventional academic procedures. Consequently, a community college program equivalent to that of the lower division of a four-year college is often not parallel. Similarly, junior colleges and technical institutes in the private sector often have a clientele whose best interests are not necessarily best served by conventional programs.

The viability of the consensus structure will to a large extent be determined by its demonstrated ability to adapt and meet student and institutional needs. A necessary first step is the improvement in the procedures involved in the transfer of students from two-year colleges to the upper division of four-year institutions. Currently, these processes are fraught with ad hoc decisions, uncertainty for the students, and a host of situational considerations which make it impossible to predict the outcome of transfer for any but the most capable students.

Transfer Categories

Students transferring credit from the community colleges to upper division institutions fall into these primary groups:

- a. students transferring occasional courses;
- b. fully enrolled students who transfer prior to completion of the AA/AS degree;
- c. graduates with either AA or AS degrees.

Ideally, there should be consensus on policy relating to all three categories. As one small step toward that ideal, the Transfer Review Council has chosen the third category as the focus of its first policy recommendation.

Statement of Policy

Throughout higher education in the Commonwealth an associate degree from any two-year college signatory to the Commonwealth Transfer Compact will be honored as a unit and construed as:
(1) completion of at least 60 hours of work toward a baccalaureate degree, and (2) completion of at least 33 hours toward fulfillment of the general education requirements for the baccalaureate degree.

Compact Specifications

Signatory institutions of higher education in the Commonwealth of Massachusetts will honor this policy and adhere to the following:

1. Definition of an associate degree transferable as a unit (contingent upon acceptance for admission) toward a baccalaureate degree as the equivalent of 60 hours of undergraduate college level study, including:

- a. 6 hours of English/communication
 - b. 9 hours of behavioral/social sciences
 - c. 9 hours of humanities/fine arts
 - d. 9 hours of mathematics/sciences
 - e. the remaining credit to be on the college level
2. The awarding, upon acceptance, of the full number of credits earned while enrolled in the associate degree program.
 3. Continuous review and evaluation of the implementation of this policy and referral to the Massachusetts Transfer Review Council of problems related to student mobility.

Clarifications

1. Students changing programs (e.g., liberal arts to engineering) may expect that it will require more than four semesters to complete the sequence of a new major.
2. "D" credit will be accepted toward the baccalaureate degree, but a receiving institution is required to apply "D" credit toward a major only if it does so for "native" students, that is, students who enrolled in the four-year institution as freshmen.
3. This unit transfer policy will accomplish the twin objectives of (1) providing unlimited opportunities for instructional and curricular flexibility in the two-year college sector, and (2) assigning to each two-year college full responsibility for meeting standards of equivalence for all programs submitted as transferable.
4. Course credit for transfers from programs not conforming to Compact specifications will be evaluated by the receiving institution according to the applicability of those courses to the baccalaureate program in the major field of the student.
5. This Compact is consistent with recommendations of the Association of American Colleges, American Association of Community/Junior Colleges, and the American Association of Collegiate Registrars and Admissions Officers, represented in the publication *Guidelines for Improving Articulation Between Junior and Senior Colleges*.

Appendix D

Guidelines for New Degree Programs and Majors

Stage I. Requesting Planning Approval

Campus requests to plan any new academic program shall be filed in writing by the Academic Dean with the Associate Director of Academic Affairs in the Central Office. The Dean shall submit 20 copies of the request in accordance with the following guidelines:

Guidelines for Requesting Planning Approval

1. State the full and exact degree terminology as indicated in the Board's policy on Degree Structure adopted February 10, 1972.
2. Indicate the proposed date of program implementation.
3. Name the department(s), division(s), or other units of the College which would offer the proposed degree program.
4. Cite the objectives of the proposed degree program.
5. List any minors or other degree program currently offered by the College which are closely related to the proposed program.
6. Present preliminary evidence of:
 - a. Student interest in the proposed program.
 - b. Employer interest for professional or career programs, and manpower needs for the immediate geographical area, the region, the Commonwealth or the nation.
7. List the other State Colleges currently offering or projecting the proposed program.
8. List other post secondary institutions in the geographical area which are currently offering or known to be projecting the proposed degree program.
9. If there are other State Colleges or post secondary institutions in the geographical area which offer or project the proposed degree program:
 - a. present evidence that there is sufficient student demand to warrant an additional program.
 - b. indicate other special considerations which call for an additional program at the college.
 - c. indicate why the educational needs which have been identified could not be satisfied in alternate ways, e.g., cooperative arrangements with other institutions, satellite programs of other public institutions, etc.
10. Briefly summarize the resources (faculty, facilities, and equipment) which are available to support the proposed program.
11. Describe the process by which the college community intends to develop the program proposal and indicate how this process will involve the major campus elements (students, faculty, and administration).

The Associate Director for Academic Affairs in the Central Office shall be available to the Dean and the campus to provide advice and assistance in the preparation of any request for planning approval.

Following submission of a request for planning approval, the Associate Director shall review the planning request with the Academic Deans in order to assure coordination in program development.

Based on a thorough study and assessment by Central Office staff of the request for planning approval, the Provost shall be authorized to grant or withhold approval. If approval is withheld by the Provost, the President of the College may request review by the Educational Affairs Committee.

Stage II. Requesting Program Approval

Following approval by the Provost, the College may proceed to design the requested program in accordance with local campus governance procedures. During this program design phase the Associate Director for Academic Affairs and his staff at the Central Office shall confer with the Academic Dean and make available to the campus the staff resources of the Central Office in preparing the request for program approval in accordance with the following guidelines:

Guidelines for Requesting Program Approval

1. State full and exact degree terminology as indicated in the Board's policy on Degree Structure adopted February 10, 1972.
2. Indicate the proposal date of program implementation.
3. Name the department(s), division(s), or other units of the College which would offer the proposed degree program.
4. Cite the objectives of the proposed degree program, for the first five years of its operation.
5. Describe the relationship of the proposed program to the projected curricular development of the department, division, and college.
6. Describe the process by which the program proposal was developed and indicate the involvement of the major elements of the college community (students, faculty, administration).
7. List all courses by catalog number, title, and units of credit to be required for a major under the proposed degree program.

Indicate those courses not presently offered which are needed to initiate the proposed program with an asterisk (*).

Indicate those courses not presently offered which will be

needed in the first year of the program's operation – and for each of the next four years.

8. List all related courses which can be accepted under the proposed degree program by catalog number, title, and units of credit.
9. Explain any special focus of the proposed degree program, e.g., in terminology, units of credit required, types of course work, etc.
10. Describe any special arrangements which would be made for this program regarding:
 - a. recruitment of students for the program,
 - b. admission of students into the program at the various levels of entry,
 - c. counseling of students in the program, and
 - d. placement of graduates.
11. Provide a student enrollment projection for the first five years of operation of the proposed program. This projection should be broken down according to the level of entry (freshmen, transfer, etc.).
12. Explain provisions for entry into the proposed program at various levels with regard especially to the articulation of curriculum for various levels (freshmen, upper division, etc.), and the recognition of credit earned in other institutions or experience gained in other settings.
13. Describe provisions for meeting accreditation requirements, if applicable.

Need for Proposed Program

1. List other State Colleges currently offering or projecting the proposed degree program.
2. List other post secondary institutions in the geographical area currently offering or projecting the proposed degree program.
3. Describe the results of a survey of:
 - a. the demand for individuals who have earned the proposed degree in the immediate geographical area, the region, and the Commonwealth.
 - b. actual and potential student interest in majoring in the proposed program.
4. Describe efforts which have been made to satisfy the educational needs which have been identified in alternative ways, e.g., through cooperative arrangements with other institutions, satellite programs of other public institutions, etc.

5. Indicate enrollment figures in the past two years in courses or programs closely related to the proposed program.

Resources for the Proposed Degree Program

1. Detail existing library resources in support of the program (specify by subject, area, column, count, etc.).
2. Indicate additional library resources needed and the schedule for their acquisition.
3. List the present faculty members with rank, highest degree earned and professional experience, who would teach in the proposed degree program.
4. Number and specify the additional faculty and staff support positions needed to initiate the proposed program and to sustain it for the first five years.
5. Analyze available resources in accordance with Chart I.
6. Indicate existing space and facilities that would be used in support of the program.
7. Indicate additional space and facilities required to initiate and/or sustain the program.
8. Explain arrangements which have been made for providing suitable off-campus field experiences, internship opportunities or clinical facilities.
9. Indicate additional instructional materials and equipment needed to support the proposed program.
10. Itemize cost estimates over the first five years of program operation and project expected sources of funding (Chart II). Copies of these Charts are available in the Office of the Provost.

Any recommendations by the Provost or the Associate Director with respect to the program shall be discussed with the President and Academic Dean of the College before the Associate Director submits the request for program approval and his own recommendations to the Educational Affairs Committee.

Moreover, the program request shall also be discussed with the Academic Deans prior to submitting it to the Educational Affairs Committee. Upon such submission, the Committee on Educational Affairs shall review the program at a regular meeting with representatives of the College present to discuss the request with committee members.

Occasionally, when proposed new academic programs do not include any additional cost to the Commonwealth or constitute special cases, the Provost may approve the abbreviation of these Guidelines.



Existing Degree Programs and Majors

Massachusetts State College System Degree Program Offerings

Undergraduate Majors in Existence - September 1, 1973¹

Majors	Boston	B'wtr	Fitchburg	F'ghm	Lowell	N. Adams	Salem	Westfield	W'str	Mass Art	Mass M
Administrative Studies									BS/BA		
Afro-American Studies	BS/BA										
American Studies					BS/BA						
Anthropology		BS/BA									
Art				BA	BA			BA		BFA	
Biology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Business Administration						BS	BS				
Business Education							BS				
Chemistry	BS/BA	BS/BA	BS/BA	BS/BA		BS/BA	BS/BA		BS/BA		
Chemistry-Geology		BS/BA									
Communications Disorders									BS/BA		
Design										BFA	
Earth Science	BS/BA	BS/BA		BS/BA			BS/BA				
Economics	BS/BA						BS/BA		BS/BA		
Education (Early Child)	BS(Ed)		BS(Ed)	BS(Ed)		BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)		
Education (Elem)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)	BS(Ed)		
Education (Jr. High)							BS(Ed)				
Education (Phys. Ed.)	BS	BS						BS			
Education (Spec. Ed.)		BS	BS					BS			
Education (Vocational)			BS					BS			
English	BA	BA	BA	BA	BA	BA	BA	BA	BA		
Environmental Sciences					BS/BA						
Fine Arts										BFA	
French	BA	BA		BA	BA	BA	BA	BA	BA		
General Science								BS			
General Studies								BA			
Geography	BS/BA	BS/BA	BS/BA	BS/BA			BS/BA		BS/BA		
German	BA										
History	BA	BA	BA	BA	BA	BA	BA	BA	BA		
Home Economics				BS							
Industrial Arts			BS								
Industrial Science			BS								
Latin American Studies	BS/BA										
Law Enforcement	BS/BA							BS/BA			
Marine Engineering											BS
Marine Transportation											BS
Mathematics	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Medical Technology	BS		BS	BS	BS	BS					
Metropolitan Studies	BS/BA										
Modern Languages					BA						
Music					BA/BMU			BA			
Natural Science	BS/BA								BS/BA		
Nursing	BS		BS	BS	BS		BS		BS		
Philosophy	BA			BA	BA						
Physics	BS/BA	BS/BA	BS/BA			BS/BA			BS/BA		
Political Science	BS/BA	BS/BA			BS/BA		BS/BA				
Psychology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Public Service	BS/BA										
Social Science								BS/BA			
Social Service							BS/BA				
Sociology	BS/BA	BS/BA			BS/BA				BS/BA		
Spanish	BA			BA	BA			BA	BA		
Speech/Theatre		BA									

Appendix F

Future Degree Programs and Majors Contemplated by Campuses

The following degree programs and majors were contemplated in the State Colleges' Responses to the first draft Master Plan and were presented in the Response Matrix.

Boston State College

Baccalaureate

Allied Health Program components

Art

Computer Science

Environmental Studies

Management

Music

Nursing

Public Service

Recreation & Recreation for the Handicapped

Secondary Education (Interdisciplinary)

Social Work

Bridgewater State College

B.A./B.S. Degree

Departmental Programs

Art

Geology

German

Music

Philosophy

Spanish

Interdepartmental Programs

American Studies

Behavioral Science Research Institute (Cooperative)

Creative Arts

Religious Studies

International Studies

African

Latin American

Non-Western

Teaching English to Speakers of Other Languages (TESOL)

Career-Oriented Programs

Biology (para-professional)

Biology-Chemistry

Biology-Psychology

Biology-Anthropology

Communication Disorders

Computer Sciences

Criminology and Corrections

Environmental Science (Interdepartmental)

Environment and Resource Management

Library Science

Nursing (Cooperative Program)

Psychology (Mental Health)

Social Welfare

Theatre

Urban Affairs (Interdepartmental)

Urban and Regional Planning

B.S. In Education Degree

Business Education

Early Childhood Education

Health Education

Instructional Media

Library Science

Psychology Education

Recreation

A.S. Degree (New)

Chemical Technician

Graduate Degree

Master Of Arts

Behavioral Science

Natural Science

Psychology

Social Sciences

Master of Arts in Teaching

(To replace Master of Education in Secondary Education)

Master of Library Science (dual program)

(To replace Master of Education in Schoolship Librarianship)

Certificate of Advanced Graduate Study

Doctor of Arts Degree

Fitchburg State College

Social, Business and Governmental Service

Human Services

Sociology

Earth Science

Criminal Justice

Economics

Business Administration

Political Science

Public Administration

Area Development

Teacher Education

Concentrations in:

Environmental Studies
Peoples and Cultures
Communications
Science and Technology
Human Services

Health and Handicapped

Speech Pathology
Health, Physical Education and Recreation (for handicapped)
Allied Health Programs

Natural Sciences and Mathematics

Computer Science
Environmental Studies

Arts and Humanities

Fine Arts
Foreign Languages
Humanities
Creative Arts
Philosophy
American Studies
European Studies
Drama and Theatre Arts

Communications and Media

Media Technology
Speech
Journalism

Occupational Education and Business Research

(See Graduate Study)

Graduate Study

M.Ed. Instructional Media
M.A.T. History
and/or Biology
M.A. Mathematics
M.S. in Nursing – With Worcester State and
U. Mass Medical School
C.A.G.S. (with U. Mass.) – Instructional Media,
Occupational Ed., Special Education
Ed.D. (with U. Mass.) – Instructional Media,
Occupational Ed., Special Education

Framingham State College

Baccalaureate

Anthropology

Computer Science
Consumer Services
Day Care
Economics
Environmental Education
Food Science
Humanities
Human Services
Law Enforcement
Microbiology
Nature History
Nursing
Occupational Therapy
Physical Therapy
Physicians' Assistants
Physics
Physiotherapy
Social Welfare
Social Work
Sociology
Theatre Arts
Third World Studies
Veterinarians' Assistants
Wildlife Biology

Graduate Programs

Elementary School Social Studies
Elementary School Teaching
Reading and Language Arts
Science for Teachers through Grade 9
Home Economics
Home Economics Education
Secondary School Biology
Secondary School English
Secondary School History
Secondary School Mathematics
Secondary School Social Studies

Masters of Arts Degree with concentrations in:
Administration
School Guidance

Master of Science Degree with a concentration in:
Applied Microbiology
Environmental Education
Environmental Health
Food and Nutrition

Lowell State College

Classics
Communications
Education

Preparation of Kindergarten Teachers
Preparation of Early Childhood Specialists

General Studies
 Latin American Studies
 Urban Studies
 Allied Health Professions
 Occupational Therapy
 Physical Therapy
 Clinical Chemistry
 Clinical Microbiology
 Laboratory Animal Technology
 Environmental Health Technology
 Health Education
 Health Services Administration
 Music (MT, Musicology, Performance)

Graduate School

Education
 M.Ed. in Learning Disabilities
 M.Ed. in Middle School Studies
 Music
 M.M. in Applied Music
 M.M. in Musicology
 M.M. in Music Theory-Composition

New Proposals:

MAT
 English
 History
 Mathematics
 Nursing (M.S.)

Massachusetts College of Art

Baccalaureate

BFA Art History
 BFA Media and Performing Arts

Graduate

MFA Design
 MFA Visual Arts

Massachusetts Maritime Academy

Proposed New Programs

B.S. Marine Science Technology Major in Marine Transportation
 or Marine Engineering
 B.S. Marine Sciences identified by major:
 Oceanography
 Ocean Engineering
 Fisheries Science
 Marine Environmental Studies
 Coastal Zone Management
 Maritime Management (3 or 4 year programs)

North Adams State College

Baccalaureate

Bachelor of General Studies
 Communication Arts
 Philosophy
 Sociology

Salem State College

Associate Degree

A.S. in Education

Baccalaureate

Art
 Business Science
 Coaching
 Computer Science
 International Commerce
 Library Science
 Linguistics and Communication
 Music Education
 Physical Education
 Recreation
 Sociology
 Spanish
 Speech and Theatre

Graduate

Business Administration
 Business Education
 Earth Science
 MAT English
 MAT French
 Geography
 Nursing Education
 MA Political Science
 Public Administration
 Social Science
 School Library Media Service
 Spanish

Westfield State College

Baccalaureate

Anthropology
 Chemistry
 Earth Science
 Economics
 German
 Italian

Library Science
Philosophy
Physics
Political Science
Sociology
Speech
Theatre Arts
Environmental Science
Commercial Art
Dental Hygiene
Nursing
Public Service
Business Administration

Worcester State College

Baccalaureate

Health Education
Media (BA)
Physical Education
Recreation Supervision

Graduate

Master in Library Science

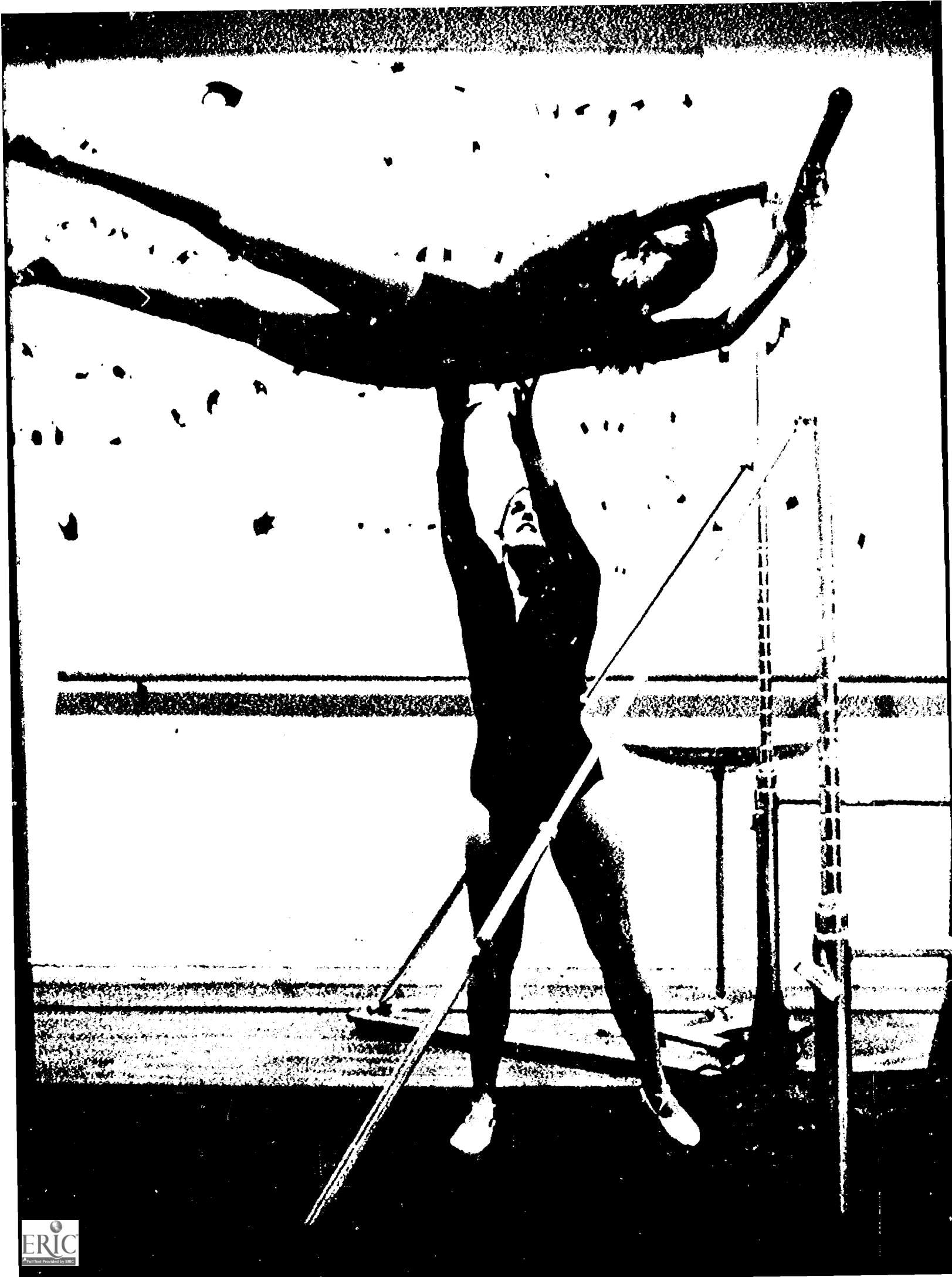
Massachusetts State College System Existing and Contemplated Degree Program Offerings

Major	Boston	B'wtr	Fitchburg	Fitchm	Lowell	N. Adams	Salem	Westfield	W'str	NCA	MMA
Administrative Studies									BS/BA		
African Studies		BA/BS									
Afro-American Studies	BS/BA										
Allied Health Studies	BS				BS						
American Studies		BS/BA	BS/BA		BS/BA						
Anthropology		BS/BA		BS/BA				BS/BA			
Area Development			BS/BA								
Art	BA	BA		BA	BA		BA	BA		BFA	
Art History										BA/BS	
Biology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Biology-Anthropology		BS/BA									
Biology-Chemistry		BS/BA									
Biology-Psychology		BS/BA									
Business Administration			BS			BS	BS	BS			
Business Education		BS					BS				
Business Science							BS				
Chemistry	BS/BA	BS/BA	BS/BA	BS/BA		BS/BA	BS/BA	BS/BA	BS/BA		
Chemistry-Geology		BS/BA									
Classics					BA						
Clinical Chemistry					BS						
Clinical Microbiology					BS						
Coaching							BS/BA				
Coastal Zone Management											BS/BA
Commercial Art								BS/BA			
Communication Arts					BS/BA			BS/BA			
Communications					BS/BA						
Communications Disorders		BS/BA							BS/BA		
Computer Sciences	BS	BS	BS	BS			BS				
Creative Arts		BS/BA		BS/BA							
Criminal Justice			BS/BA								
Criminology and Corrections		BS/BA									
Dental Hygiene								BS			
Design										BFA	
Drama & Theater Arts			BS/BA								
Earth Science	BS/BA	BS/BA	BS/BA	BS/BA			BS/BA	BS/BA			
Economics	BS/BA		BS/BA	BS/BA			BS/BA	BS/BA	BS/BA		
Education (Early Child)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)		
Education (Elem.)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)		
Education (Jr. High)							BS (Ed)				
Education (Phys. Ed.)	BS	BS	BS				BS	BS	BS		
Education (Spec. Ed.)		BS	BS					BS			
Education (Vocational)			BS					BS			
English	BA	BA	BA	BA	BA	BA	BA	BA	BA		
English as Second Lang.		BA									
Environmental Education				BS							
Environmental Health Tech.					BS						
Environmental Science	BS/BA	BS/BA			BS/BA			BS/BA			
Environmental Studies			BS/BA								
European Studies			BS/BA								
Fine Arts			BA					BA		BFA	
Fisheries Science											BS/BA
Food Science				BS/BA							
Foreign Language			BA								
French	BA	BA		BA	BA	BA	BA	BA	BA		
General Science								BS			
General Studies					BA	BA	BA	BA			
Geography	BS/BA	BS/BA	BS/BA	BS/BA			BS/BA		BS/BA		
German	BA	BA						BA			
Health			BS								
Education		BS			BS				BS		
Service Administration					BS						
History	BA	BA	BA	BA	BA	BA	BA	BA	BA		

Art/American Studies	BS/BA									
Allied Health Studies	BS				BS					
American Studies		BS/BA	BS/BA		BS/BA					
Anthropology		BS/BA		BS/BA				BS/BA		
Area Development			BS/BA							
A 1	BA	BA		BA	BA		BA	BA		BFA
Art History										BA/BS
Biology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	
Biology-Anthropology		BS/BA								
Biology-Chemistry		BS/BA								
Biology-Psychology		BS/BA								
Business Administration			BS			BS	BS	BS		
Business Education		BS					BS			
Business Science							BS			
Chemistry	BS/BA	BS/BA	BS/BA	BS/BA		BS/BA	BS/BA	BS/BA	BS/BA	
Chemistry-Geology		BS/BA								
Classics					BA					
Clinical Chemistry					BS					
Clinical Microbiology					BS					
Coaching							BS/BA			
Coastal Zone Management										BS/BA
Commercial Art								BS/BA		
Communication Arts					BS/BA			BS/BA		
Communications					BS/BA					
Communications Disorders		BS/BA							BS/BA	
Computer Sciences	BS	BS	BS	BS			BS			
Creative Arts		BS/BA		BS/BA						
Criminal Justice			BS/BA							
Criminology and Corrections		BS/BA								
Dental Hygiene								BS		
Design										BFA
Drama & Theater Arts			BS/BA							
Earth Science	BS/BA	BS/BA	BS/BA	BS/BA			BS/BA	BS/BA		
Economics	BS/BA		BS/BA	BS/BA			BS/BA	BS/BA	BS/BA	
Education (Early Child)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	
Education (Elem.)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	BS (Ed)	
Education (Jr. High)							BS (Ed)			
Education (Phys. Ed.)	BS	BS	BS				BS	BS	BS	
Education (Spec. Ed.)		BS	BS					BS		
Education (Vocational)			BS					BS		
English	BA	BA	BA	BA	BA	BA	BA	BA	BA	
English as Second Lang.		BA								
Environmental Education				BS						
Environmental Health Tech.					BS					
Environmental Science	BS/BA	BS/BA			BS/BA			BS/BA		
Environmental Studies			BS/BA							
European Studies			BS/BA							
Fine Arts			BA					BA		BFA
Fisheries Science										BS/BA
Food Science				BS/BA						
Foreign Language			BA							
French	BA	BA		BA	BA	BA	BA	BA	BA	
General Science								BS		
General Studies					BA	BA	BA	BA		
Geography	BS/BA	BS/BA	BS/BA	BS/BA			BS/BA		BS/BA	
German	BA	BA						BA		
Health			BS							
Health Education		BS			BS				BS	
Health Service Administration					BS					
History	BA	BA	BA	BA	BA	BA	BA	BA	BA	
Home Economics				BS						
Humanities			BA	BA						
Services			BS/BA	BS/BA						

<i>Major</i>	<i>Boston</i>	<i>B'wtr</i>	<i>Fitchburg</i>	<i>F'ghm</i>	<i>Lowell</i>	<i>N. Adams</i>	<i>Salmon</i>	<i>Westfield</i>	<i>W'vtr</i>	<i>MCA</i>	<i>MMA</i>
Industrial Arts			BS								
Industrial Science			BS								
International Commerce							BS/BA				
International Studies		BS/BA									
Instructional Media		BS/BA									
Italian								BA			
Journalism			BA								
Laboratory Animal Technology					BS						
Latin American Studies	BS/BA	BS/BA									
Law Enforcement	BS/BA				BS/BA			BS/BA			
Library Science		BS/BA		BS/BA			BS/BA	BS/BA			
Linguistics & Communication									BS/BA		
Management	BS/BA										
Marine Engineering											BS
Marine Environmental Studies											BS
Marine Science Technology											BS
Marine Transportation											BS
Maritime Management											BS/BA
Mathematics	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Media									BS/BA		
Media & Performing Arts										BS/BA	
Media Technology			BS/BA								
Medical Technology	BS		BS	BS	BS	BS					
Metropolitan Studies	BS/BA										
Microbiology				BS/BA							
Modern Languages					BA						
Music	BA	BA			BA/BNU		BMEd	BA			
Natural History				BA/BS							
Natural Science	BS/BA								BS/BA		
Non-Western Studies		BA/BS									
Nursing	BS	BS	BS	BS	BS		BS	BS	BS		
Occupational Therapy				BS/BA	BS/BA						
Oceanography											BS
Ocean Engineering											BS
Philosophy	BA	BA	PA	BA	BA	BA		BA			
Physical Therapy				BS	BS						
Physicians' Assistants				BS							
Physics	BS/BA	BS/BA	BS/BA	BS/BA		BS/BA		BS/BA	BS/BA		
Physiotherapy				BS							
Political Science	BS/BA	BS/BA	BS/BA		BS/BA		BS/BA	BS/BA			
Psychology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Psychology Education		BS									
Psychology (Mental Health)		BS/BA									
Public Administration			BS/BA								
Public Service	BS/BA							BS/BA			
Recreation	BS/BA	BS/BA					BS/BA				
Recreation for Handicapped	BS/BA		BS/BA					BS/BA	BS/BA		
Recreation Supervision									BS/BA		
Religious Studies		BS/BA									
Secondary Education	BS (Ed)										
Social Science								BS/BA			
Social Welfare		BS/BA		BS/BA							
Social Work	BS/BA			BS/BA			BS/BA				
Sociology	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA	BS/BA		
Spanish	BA	BA		BA	BA		BA	BA	BA		
Speech			BA					BA			
Speech Pathology			BS								
Speech/Theatre		BA					BA				
Theatre		BA									
Visual Arts				BA				BA			
World Studies				BS/BA							
World Affairs		BS/BA									

ERIC
Full Text Provided by ERIC



Appendix G

Suggested Procedures for Application and Approval of Reduction in Faculty Workload

1. Not more than ten faculty members, or 10 percent of the full time faculty at the college, whichever is less, shall be permitted a teaching workload reduction each year.
2. Not more than a one-half reduction in teaching load shall be permitted for any individual faculty member.
3. Faculty members wishing to request a teaching load reduction shall do so in writing to their department chairman with a copy to the Academic Dean setting forth in detail the purpose of his or her undertakings.
4. All written requests shall be reviewed by the Department Chairman and by a panel of faculty within the discipline area and shall be submitted to the Academic Dean following such review.
5. The Department Chairman shall certify in writing to the Dean that another faculty member or members within the Department is willing to assume the ½ time teaching load of the faculty member being considered for a reduction.
6. The final decision on the approval of any requests shall be made by the President of the College.

Appendix H

Planning the State College System

In short range terms, this Report is the direct outgrowth of a process that began in the academic year 1970-71, shortly after the Board of Trustees appointed a Provost of the Massachusetts State College System. During that year, in a series of discussions held between campus representatives and members of the Board's Central Office staff, it became apparent that the lack of an "academic master plan" for the development of the System posed a serious impediment to its continued growth. At a System-wide conference held in April, 1971, it was decided to give planning top priority – a decision formalized by the Trustee Committee on Educational Affairs in an October, 1971, directive to the Provost. Since that time, the drafting of plans and policy recommendations for the System has been the focal point of staff working in the Central Office.

Historically, of course, the process of "planning," insofar as State Colleges are concerned, goes back over 125 years. The development of what has been called "the people's colleges" in the United States can be divided into four periods:

1. the Era of the State Normal School (1839-1900)
2. the development of State Teachers Colleges (1900-1946)
3. the Era of the Modern State College (1946-the late 1960's)
4. the development of a limited number of Regional State Universities (1960's-1970's)

All eleven of the institutions in the Massachusetts State College System were founded before 1900, nine of them as normal schools. In 1838 the Legislature authorized the State Board of Education to establish three teachers colleges in different geographic regions of the State. The first was opened at Lexington on July 3, 1839, and later moved to West Newton and then to Frammingham, its present location. The second was opened at Barre on September 3, 1893, and was soon moved to Westfield. The third was opened at Bridgewater on September 9, 1840. Boston State College was originally established in 1852 as a city training school for teachers and was transferred in 1952 to the Commonwealth of Massachusetts. The normal school was established in 1854; twenty years later a similar school was established in Worcester. During the 1890's, there was additional growth when four more schools were established: Hyannis (1894-1944), Fitchburg (1894), North Adams (1896), and Lowell (1897).

The Massachusetts State College System also includes two specialized colleges. The College of Art was established in 1873 as the first Normal Art School in America. The Massachusetts Maritime Academy, the oldest continuously operating school of its kind in the United States, was founded in 1891 to provide officers for the U.S. Merchant Marine and was integrated into the State College System in 1964.

In 1909, the normal schools were grouped together under the direct supervision of the Department of Education. They were authorized to grant the Bachelor of Education degree in 1922, but it was not until 1932 that these normal schools were formally designated as State Teachers Colleges. In 1935, they were authorized to confer the Master of Education degree, the principal graduate degree offered today. In 1950, the Department of Education authorized the Massachusetts School of Art to grant the Bachelor of Fine Arts degree.

During the 1950's, several studies of the academic programs of the Massachusetts State Teachers Colleges suggested there was need for broader curricula and more physical facilities. In 1960, the colleges were renamed "State Colleges," and they began to diversify their fields of study. Since that time, Bachelor of Arts and Bachelor of Science degree programs have been developed in most of the liberal arts and sciences as well as in several professional areas.

The decade of the 1960's brought rapid expansion and dramatic reform to public higher education in Massachusetts. Passage of the Willis-Harrington Act in 1965 vested fiscal autonomy and

expanded authority in the Board of Trustees of State Colleges. A regional community college system was born. The University of Massachusetts grew rapidly. A Board of Higher Education came into being.

With so many new students to serve, the major concern during this period was simply how to "catch up." The Board of Trustees of State Colleges soon decided that "catching up" without any future plans was a poor way to proceed, so in 1968 the firm of Perry, Dean and Stuart, Inc., was commissioned to produce a physical facilities Master Plan for the Massachusetts State Colleges. In addition, individual colleges were requested to submit academic master plans to the Board. Several of these college plans were brief and not adequately developed. The Board became increasingly concerned about the lack of a System-wide Academic Master Plan, and, as has been noted, the Central Office staff was instructed to give preparation of such a Plan top priority.

In January, 1972, Provost Lawrence E. Dennis informed the Board of Trustees, the Presidents, and members of the Student Advisory Commission* that the Central Office staff would be planning and organizing a series of workshops during the ensuing months. To underscore Trustee commitment, the Long Range Planning Committee was made a standing committee under the Board's organizational structure which would focus on areas pertinent to academic master planning: the process of planning, the definition of goals, college enrollment trends, socio-economic and manpower trends, new academic programs, requisite changes in physical facilities, and changes in both fiscal requests and allocations. All were matters which had critically important implications for the academic future of the State College System.

The Trustees and the Provost believed that individuals at the colleges must have an understanding of the needs and future of the State College System, and that those concerned with building a System must be attuned to and knowledgeable about the problems and needs of the individual institutions. In order to effect a System-wide involvement of all parties concerned, Trustees, Presidents, Central Office staff, together with some faculty members, students, and college administrators, were invited to participate in the initial 1972 workshops. Each college, in effect, had a "team" of two administrators, two faculty, and two students, chaired by the President, which tended the workshops and formed the core of a larger planning committee at each college. Consultants from state and federal agencies and from other state systems also participated. Four workshops comprised the first series, held in the late winter and spring months of 1972.

During the summer and early fall of 1972, planning efforts in the Central Office concentrated on assessing the lessons learned in the first workshop series, evaluating approaches to System-wide planning used in several other states, and preparing a document that would form the basis for campus discussions during the 1972-73 academic year.

Central Office of a working document, "Toward an Academic Master Plan for the Massachusetts State College System: Framework for Discussion," prepared by Jana B. Matthews, then Assistant Director for Academic Affairs and Admissions for the System. This "draft plan" was distributed to all campuses in the System, as well as to representatives of other colleges and universities and selected state agencies, with the clear understanding that it was designed to stimulate further discussion prior to the writing of a final Master Plan in 1973.

The "draft plan" then became the backdrop on the campuses for the preparation by planning teams of responses to the ideas it expressed, as well as for the development of individual college long-range plans. All of the Presidents were, as were the Faculty Advisory and Student Advisory Commissions, asked to submit commentaries to the Central Office, and thru the Provost, to the Trustee Long-Range Planning Committee.

A citizens advisory committee was established by the Provost in mid-December, 1972, to work with the Trustee Committee and its staff. During the early months of 1973, while the campuses' responses were being prepared, five subcommittees of the citizens committee met several times to discuss issues highlighted in the "draft plan" and to formulate recommendations concerning them. These were later summarized by the Central Office staff and presented to the Trustee Long-Range Planning Committee.

When the campus responses to the "draft plan" were received, they also were summarized and analyzed for the Board by the staff and then circulated to the Council of Presidents and the two Advisory Committees. These responses subsequently formed the basis for two System-wide discussion workshops (in late April and early May, 1973) sponsored by the Long-Range Planning Committee, involving some 180 students, faculty members, and administrators from the eleven State Colleges, plus representatives of the Central Office and the Board.

The keynote theme for the 1973 spring workshops was sounded in an introductory statement presented by Sylvia K. Burack, Vice Chairman of the Board of Trustees and Chairman of its Committee on Educational Affairs. "Basic to the effort underway," she said, "is the fact, the reality, that all of us are part of the Massachusetts State College System, which is made up of 13 interdependent components: the 11 colleges, the Central Office staff, and the Board of Trustees, which by statute and history has a leadership and coordinating role in formulating policies which promote the growth and development of the System -- for the benefit of the students and the citizens of the Commonwealth which supports us." The full text of her remarks has been reproduced in Appendix A.

Among the many issues discussed at length during the course of the two workshops were: (1) the relationship between education in the liberal arts and sciences and education for careers; (2) the need for innovation in undergraduate and graduate education; (3) the need

This resulted (in November, 1972) in the publication by the Cen-

for improvement in the quality of instruction; (4) relationships among the Trustees, the Central Office staff, the Council of Presidents, and the faculty members and students; (5) the need to review personnel policies throughout the System; (6) relationships among the various segments in public higher education, as well as between the public and private sectors; and (7) the importance of improved System-wide communication to effective planning in the years immediately ahead.

With the adjournment of the second 1973 workshop, Provost Dennis indicated to the participants what the next steps in the "planning process" would entail: (1) preparation by the staff of the Long-Range Planning Committee of a draft "final master plan" for consideration by the Committee in late June; (2) following Committee review, submission of the document by the staff to the Council of Presidents and the two Advisory Commissions; (3) resubmission by the staff of a "revised final draft" to the Committee in late July; (4) final approval by the Trustee Committee of a Report to be presented formally to the full Board of Trustees for its consideration at its September, 1973 meeting. (5) following full Board approval, distribution of the final Report throughout the System and to key educational and other public leaders of the Commonwealth.

With the dissemination in the early fall of 1973 of this Report to faculty members, students, and administrators, in the eleven institutions under the Board's aegis, the Trustees and members of Central Office staff will have completed the first phase of the new academic master planning process initiated some 30 months earlier. The next phase will involve following up the recommendations therein approved by the Board, and the monitoring and evaluating of that follow-up by the Long-Range Planning Committee acting as the Board's agent. A report of progress for 1973-74 will be issued by the Committee prior to the opening of the 1974-75 academic year.

Appendix I

Less Time, More Options

From:
Carnegie Commission on Higher Education, *Less Time, More Options: Education Beyond the High School* (New Jersey: McGraw-Hill, 1971) pp. 13-24, used with permission of McGraw-Hill Book Company.

1. *That service and other employment opportunities be created for students between high school and college and at stop-out points in college through national, state, and municipal youth programs, through short-term jobs with private and public employers, and through apprenticeship programs in the student's field of interest; and that students be actively encouraged to participate.*

We believe not only that all colleges should encourage prospective and continuing students to obtain service and work experience, but also that some colleges may wish to require it before admission or at some point during matriculation and could, in fact, in appropriate instances, grant credit for it toward completion of degree requirements. The federal, state, and municipal governments can assist in this. We believe that the federal, state, and municipal governments, on a permanent basis, should offer service opportunities to young people. Industry should examine its hiring policies and employment patterns to determine ways in which it can provide short-term jobs for young people who wish work experience before taking further formal education. In a recently published Carnegie Commission study of 1961 college graduates, over three-fifths of those responding felt there should be some stopping out either between high school and college or during college.

2. *That opportunities be created for persons to reenter higher education throughout their active careers in regular daytime classes, nighttime classes, summer courses, and special short-term programs, with degrees and certificates available as appropriate.*

Higher education is now prejudiced against older students. They should be welcomed instead. Too often they are looked upon as inferior. Yet older students will help end the *in loco parentis* atmosphere of many campuses, add maturity to discussions, and make a more balanced community out of the college.

3. *That opportunities be expanded for students to alternate employment and study, such as the "sandwich" programs in Great Britain and the programs at some American colleges.*

Programs at American colleges that combine work experience and formal study are increasing in number and should be encouraged. (See Attached)

4. *That alternative avenues by which students can earn degrees or complete a major portion of their work for a degree be expanded to increase accessibility of higher education for those to whom it is now unavailable because of work schedules, geographic location, or responsibilities in the home.*

Recent developments in the United States and in other nations point to increased flexibility in the routes open to persons seeking college degrees:

- The College Level Examination Program makes it possible to obtain college credit for independent study.
- TV and radio college-level courses are recognized by some institutions.
- The mailed syllabus, radio course, local tutorials, and institutional examination form the core of instruction at Britain's new "Open University."

- Independent study, sometimes in combination with tutorials, followed by comprehensive examinations, has long been used by the University of London in its external degree program. The future holds the possibility for even greater flexibility in the routes by which persons may obtain degrees.
- Video cassettes and computer-assisted instruction can turn the home into a classroom. In Japan, the Ministry of Education intends to establish an "open university" by 1972 relying heavily on video cassettes that would be available on a rental basis.
- Expansion of college-level examination programs and greater use of off-campus instructional programs may eventually make it possible to earn degrees without any college residence.

(Attachment A)

Sandwich Programs in Great Britain and
Cooperative Education Programs in the United States

Technical Training in England

Several English technical education programs employ alternating periods of training at work and full-time college study. The major patterns for this type of training are:

- two-day release, or two days per week instead of one;
- "block" release, in which the aggregate of full-time periods at college, over the whole course, averages eighteen weeks per year or less (such as, for example, one full term of twelve or thirteen weeks per year, or one week in every three);
- "sandwich" or "thin-sandwich" release, in which the full-time periods at work and at college are of about six months each;
- "thick-sandwich" release, in which the full-time college periods are longer than six months (such as nine months at college and three in industry; or a year in industry, followed by a three-year course at a university, and then by another year in industry); and
- a kind which might be called "inside-out-sandwich," in which, for example, a full year in industry occupies the second or third year of an otherwise full-time four-year course.

... Most sandwich students are, like part-time students, "works-based," being employed as student apprentices and paid a wage by their firms whilst at college and at work. But a few are "college-based," that is to say, not regular employees at all, but eligible for grant from their authorities whilst at college and paid a wage only during the works-training parts of their courses. The latter parts

are arranged by the colleges in consultation with cooperating firms. (SOURCE: A.J. Peters, *British Further Education*, Pergamon Press, Oxford, 1967.)

Appendix J

Acknowledgements

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